



Economic and Revenue Forecast

Fiscal Year 2012
Third Quarter

February 2012



WASHINGTON STATE DEPARTMENT OF
Natural Resources
Peter Goldmark - Commissioner of Public Lands

Acknowledgements

The Washington Department of Natural Resources' (DNR) *Economic and Revenue Forecast* is a collaborative effort. It is the product of information provided by private individuals and organizations, as well as DNR staff. Without their contributions, the quality of the Forecast would be greatly diminished.

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In the final analysis, the views expressed are my own and may not necessarily represent the views of the contributors or reviewers.

Craig Calhoon, Economist
DNR Office of Budget and Economics
(360) 902-1619

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Prepared by
Craig Calhoon, Economist
DNR Office of Budget and Economics



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Acronyms and abbreviations

bbf	Billion board feet
BLS	U.S. Bureau of Labor Statistics
CAD	Canadian dollar
CNY	Chinese yuan renminbi
CPI	Consumer Price Index
CY	Calendar Year
DNR	Washington Department of Natural Resources
ECB	European Central Bank
FDA	Forest Development Account
Fed	U.S. Federal Reserve Board
FOMC	Federal Open Market Committee
FY	Fiscal Year
GDP	Gross Domestic Product
IMF	International Monetary Fund
ISM	Institute for Supply Management
mbf	Thousand board feet
mmbf	Million board feet
NAFTA	North American Free Trade Agreement
OPEC	Organization of Petroleum Exporting Nations
PPI	Producer Price Index
Q1	First quarter of year (similarly Q2, Q3, and Q4)
QE2	Quantitative Easing, Round 2
RCW	Revised Code of Washington
REIT	Real Estate Investment Trust
RISI	Resource Information Systems, Inc.
RMCA	Resource Management Cost Account
SA	Seasonally Adjusted
SAAR	Seasonally Adjusted Annual Rate
TIMO	Timberland Investment Management Organization
USD	U.S. dollar
USFS	U.S. Forest Service
WWPA	Western Wood Products Association
WTO	World Trade Organization
¥	Japanese yen



Preface

This *Economic and Revenue Forecast* projects revenues from Washington State lands managed by the Washington State Department of Natural Resources (DNR). These revenues are distributed to management funds and beneficiaries as directed by statute. The Forecast revenues are organized by source, fund, and fiscal year.

DNR revises its Forecast quarterly to provide updated information for trust beneficiaries and department budgeting purposes. See the Forecast calendar at the end of this section for release dates. We strive to produce the most accurate and objective forecast possible, based on current policy direction and available information. Actual revenues depend on DNR's future policy decisions and changes in market conditions beyond our control.

This Forecast covers fiscal years 2012 through 2015. Fiscal years for Washington State government begin on July 1 and end on June 30. For example, Fiscal Year 2012 runs from July 1, 2011 through June 30, 2012.

The baseline date (the point that designates the transition from “actuals” to forecast) for this Forecast is January 1, 2012. The forecast numbers beyond that date are based on the most up-to-date DNR sales and revenue data available at the time of their estimation, including DNR's timber sales results through January 2012. Macroeconomic and market outlook data and information are the most up to date available as the forecast document is being written.

Unless otherwise indicated, values are expressed in nominal terms without adjustment for inflation. Therefore, interpreting trends in the Forecast requires attention to inflationary changes in the value of money over time separate from changes attributable to other economic influences.

Each DNR Forecast builds on the previous one, emphasizing ongoing changes. Before preparing each Forecast, world and national macroeconomic conditions and the demand and supply for forest products and other commodities are reevaluated. The impact on projected revenues from DNR-managed lands is then evaluated, given the current economic conditions and outlook.

DNR Forecasts provide information used in the *Washington Economic and Revenue Forecast* issued by the Washington State Economic and Revenue Forecast Council. The release dates for DNR's Forecasts are determined by the state's Forecast schedule as prescribed by RCW 82.33.020. The table below shows the anticipated schedule for DNR's future *Economic and Revenue Forecasts*.

Economic Forecast Calendar

Forecast Title	Baseline Date	Draft Revenue Data Release Date	Final Data and Publication Date (approximate)
June 2012	May 1, 2012	June 1, 2012	June 29, 2012
September 2012	August 1, 2012	Sept. 7, 2012	Sept. 28, 2012
November 2012	October 1, 2012	Nov. 2, 2012	Nov. 30, 2012
March 2013	February 1, 2013	March 1, 2013	March 29, 2013



Introduction and Forecast Highlights

U.S. Economy and Housing Market. Finally, after years of depressing economic news, there are some glimmers of hope and increasing confidence. The U.S. unemployment rate has been steadily moving down and now stands at 8.3 percent in January. There are 1.8 million more jobs in the U.S. than a year ago. New housing starts may at long last be moving out of the deep trough they entered over three years ago (although existing home prices continue to fall). However, the recovery is weak and the economy remains fragile—there are still too many unemployed workers, foreclosed residential properties will weigh down the housing market for years to come, and there is downside vulnerability from the continuing European financial crisis, a slowdown in China’s economy, and political gridlock in Washington DC.

Log and Lumber Prices. Pacific Northwest log prices held relatively steady throughout 2011. During the year, the average price for a “typical” DNR log delivered to the mill was \$481/mbf, varying in a narrow range between a high of \$503/mbf in March and a low of \$466/mbf in the most recent month of December. This was higher than the average annual log prices in the three prior years, at \$409, \$316, and \$413/mbf in 2008, 2009, and 2010 respectively. Regional log prices held up in 2011 because of the increased level of log exports to China from private forestlands. West Coast lumber prices show a similar pattern, with the Random Lengths’ Coast Dry Random and Stud composite lumber price averaging \$270/mbf for 2011, compared with \$209, \$190, and \$264/mbf for 2008, 2009, and 2010 respectively. The composite lumber price was lower in the last quarter of 2011, when it averaged \$254/mbf.

Timber Sales Prices. Through the first seven months of FY 2012 DNR timber sales prices have averaged \$329/mbf, compared with the \$282/mbf projected for the entire fiscal year in the November Forecast. The \$282/mbf annual average sales price is left unchanged in this Forecast because log prices are projected to fall over the next five months--the unexpected strength in log prices in this period in the previous two years is not expected this year. Since a significant recovery in the U.S. housing market is not foreseen over the next several years, we are holding the projected FY 2013 timber sales price at \$274/mbf and the FY 2014 and 2015 prices at \$300/mbf. An earlier housing recovery would pull DNR’s timber sale prices higher and a fall-off in Pacific Northwest log exports to China from their recent high levels would pull them lower.

Timber Sales Volume. Projected timber sales volumes are revised downward to 656, 667, and 667 mmbf respectively for FYs 2012, 2013, and 2014. A downward adjustment of 12 mmbf in each of those years results from conforming historical Westside timber sales volume data for the first seven years of the FY 2005-2014 sustainable harvest decade with the 5,500 mmbf timber sales target level for the decade. An additional downward adjustment of 11 mmbf is made in FY 2012 to account for a lower Eastside timber sales level. Timber sales volume for FY 2015, which is in the next sustainable harvest decade, is left unchanged at 597 mmbf. In the first seven months of FY 2012, DNR has sold 274 mmbf, or 42 percent, of the projected annual sales volume of 656 mmbf.

Timber Removal Volume and Prices. Forecast timber removal volumes are adjusted down from the November Forecast by 65 and 36 mmbf for FY 2012 and 2013 respectively. This is based on the changes to the projected timber sales levels as well as on the results of our timber purchasers' survey on the timing of their harvesting of timber currently under sales contract. Projected removals are up by 23 mmbf in FY 2014 as a result of timber purchasers moving their planned harvests further out into the future. The largest adjustment to projected timber removal prices during the Forecast period is in FY 2012, with a two percent increase up to \$309/mbf.

Bottom Line for Timber Revenues. Because there are only very minor revisions to forecast timber removal prices, changes to projected timber revenues follow the pattern of changes to projected timber removal volume. The projection for the 2011-2013 Biennium is revised down seven percent from \$361.5 million to \$336.2 million. For the 2013-2015 Biennium, the projected revenue from timber removals is revised up one percent to \$389.1 million from the \$384.9 million figure in the previous Forecast.

Uplands and Aquatic Lands Lease (Non-Timber) Revenues. In addition to revenue from timber removals on state lands, DNR also receives sizable revenues from leases on uplands and aquatic lands. FY 2012 revenues from agricultural leases are increased by \$1.0 million because of better than expected revenues from irrigated crop leases. FY 2013 revenues are reduced by \$2.5 million because of lowered expectations on the proceeds from a proposed disposition of communication site improvements. FY 2012 aquatic lands revenue is left unchanged because of uncertainty about how much additional geoduck volume will be auctioned within the fiscal year. Altogether, current 2011-2013 Biennium revenues from leases on uplands and aquatic lands are projected to be \$123.9 million, down one percent from \$125.4 in the November 2011 Forecast. For the 2013-2015 Biennium these revenues are projected to be unchanged at \$121.4 million.

Risks to the Forecast. The downside potential to the overall forecast is greater than the upside potential primarily because of the risks to timber sales volume--and therefore timber removal volume--due to potential environmental and policy issues. In addition, the uncertain and volatile economic conditions in the United States and the world continue to make economic forecasting challenging at this time.



Part 1. Macroeconomic Conditions

This section briefly reviews current and predicted conditions in the United States and world economies because these macroeconomic conditions affect the stumpage bid prices for DNR timber sales as well as lease revenues from DNR-managed uplands and aquatic lands.

International supply and demand also affect domestic timber stumpage and lumber prices. On the supply side, Canada has a strong influence on the U.S. wood products sectors as it is a major source of lumber that enters U.S. markets quite readily. On the demand side, China is an important market for commodities including logs and geoducks.

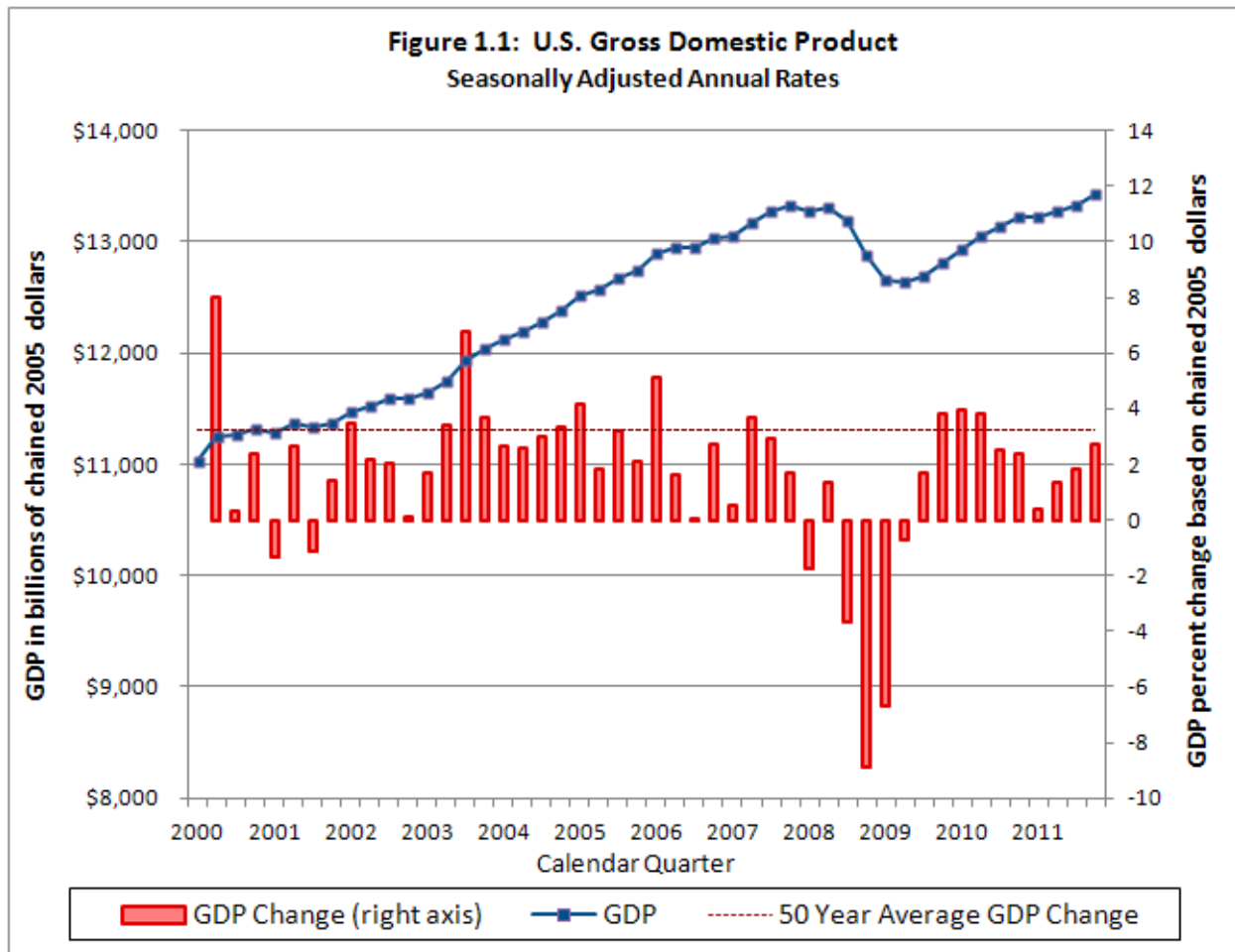
U.S. economy

For the past year and half, the U.S. has been caught in a tug of war. On one side is the economy's natural resilience. On the other are the long-lasting effects of a burst credit bubble and some bad luck—the oil-price spike provoked by the Arab Spring, the supply-chain disruption following Japan's earthquake. At the end of 2010, the economy's resilience was winning. In 2011, it gave ground. This [2012] could be the start of the much-hoped-for virtuous circle.

*David Wessel
Wall Street Journal
December 29, 2011*

Gross Domestic Product (GDP). The Great Recession's staggering blow to the U.S. economy is clearly seen on **Figure 1.1** as U.S. real gross domestic product (GDP)—the output of goods and services produced by labor and property located in the United States—actually fell for five out of six quarters during 2008 and the first half of 2009. The worst quarters for GDP decline during the recession were Q4 2008 and Q1 2009, at -8.9 percent and -6.8 percent respectively (see **Figure 1.1**). It took until Q3 2011 for real GDP to get back to its pre-recession peak in Q4 2007—almost four years.

In Q4 2009 through Q2 2010, growth in GDP resumed growing at a rate slightly higher than before the recession began, with annualized GDP growth rates in the 3.8 to 3.9 percent range. But for six quarters in a row now growth has been at a slower rate. In 2011, the rate of GDP growth increased each quarter and averaged 1.6 percent for the year (see **Figure 1.1**).



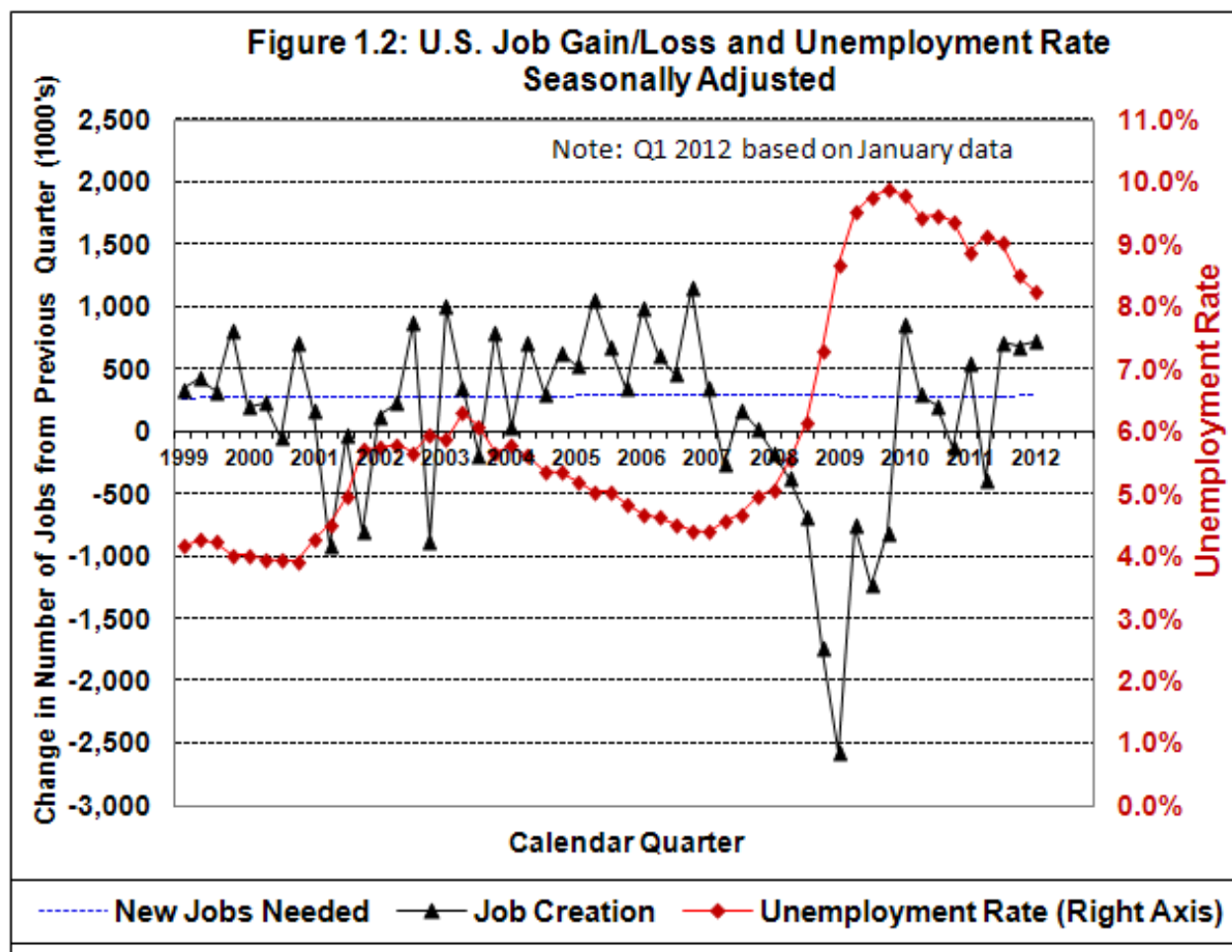
The 2.8 percent real GDP growth rate in Q4 2011 primarily reflected an upturn in private inventory investment and accelerations in personal consumption expenditures and in residential fixed investment. These were partly offset by a deceleration in nonresidential fixed investment, a downturn in federal government spending, an acceleration in imports, and a larger decrease in state and local government spending. Underlying details show that the activity in nonresidential structure investment is in the power and communications sectors; there is currently very little investment in offices, malls, and lodging.

Government spending cuts are holding back the economic recovery. Government spending contracted a large 7.3 percent in Q4 2011. Had it not been for these cutbacks, growth would have been 3.7 percent rather than 2.8 percent.

To the extent that a good share of the GDP growth was due to businesses building up their inventories, this could indicate a slowdown in production next quarter. Most forecasters seem to be predicting a slight dip in the first quarter of 2012.

The IMF projects U.S. GDP growth at 1.8 percent for 2012. The Blue Chip Consensus projection is 2.2 percent for 2012 and 2.6 percent for 2013.

Employment. What unusual times these are that there was cheering when the 8.3 percent unemployment rate for January was announced—but, of course, this in context of where we have recently been. As shown by the red line in **Figure 1.2**, the national unemployment rate has been falling from its high point of 10.1 percent in October 2009, at first excruciatingly slowly and now with an encouraging progression downward—8.9, 8.7, 8.5, and 8.3 percent in the last four months.



There has been positive job growth now for seven months in a row and there are now 1.8 million more jobs in the U.S. than just a year ago.

An 8.3 percent unemployment rate is still too high and it does not tell the whole story. U-6, an alternate measure of labor underutilization that includes part time workers and marginally attached workers, stood at 15.1 percent in January. This is an improvement over the 16.4 to 17.4 percent range it was in from May 2009 through the end of 2010, but the U-6 unemployment rate remains very high—it averaged 8.3 percent in 2007 when the official unemployment rate averaged 4.6 percent.

The recession has also expanded the ranks of the long-term unemployed to an extent not seen since the Great Depression. In January, there were 5.5 million people who have been

unemployed for over six months (an improvement over the peak of 6.7 million in May 2010) and the average duration of unemployment was 40.1 weeks (still near the record high of 40.9 weeks two months earlier).

The unemployment rate would be higher than it is except for a lack of growth in the U.S. labor force. The labor force usually grows about 0.7 percent each year because of population growth (natural increase plus net immigration). But the total number of persons in the labor force has been stagnant in the last three and one-half years. The recession has slowed U.S. population growth because it has slowed immigration and there is evidence that it has also lowered the U.S. birth rate. In addition, many discouraged Americans have dropped out of the labor force and stopped looking for work.

But none of these things can be addressed in a single month: creating jobs takes time. And what we've been seeing over the past couple of months is an economy moving smartly in exactly the right direction. . . So while there's a lot of work to be done, let's allow ourselves a bit of celebration today. For all the problems in the world—and the US economy could still be derailed if something nasty happens in Europe—things are moving very much in the right direction for the time being.

Felix Salmon

“Fantastic news on jobs” (upon release of the January BLS employment report)

Reuters

February 3, 2012

Consumption. Real personal consumption expenditures increased 2.0 percent in Q4 2011, compared with an increase of 1.7 percent the previous quarter. Spending on durable goods increased 14.8 percent, bolstered by a 37.7 percent increase in consumer spending on motor vehicles and parts, a 9.8 percent increase for recreational goods and vehicles, and an 8.6 percent increase for furnishings and durable household equipment. There is a lot of pent-up demand for things like automobiles. People have held back on purchasing cars and other manufactured goods during the slump. Those goods are depreciating and more people are getting ready to replace them now that the credit situation has improved. Consumer spending on services increased by only 0.2 percent on a quarter-over-quarter basis, with a 3.1 percent decrease in housing and utilities and a 3.0 percent decrease in financial services and insurance.

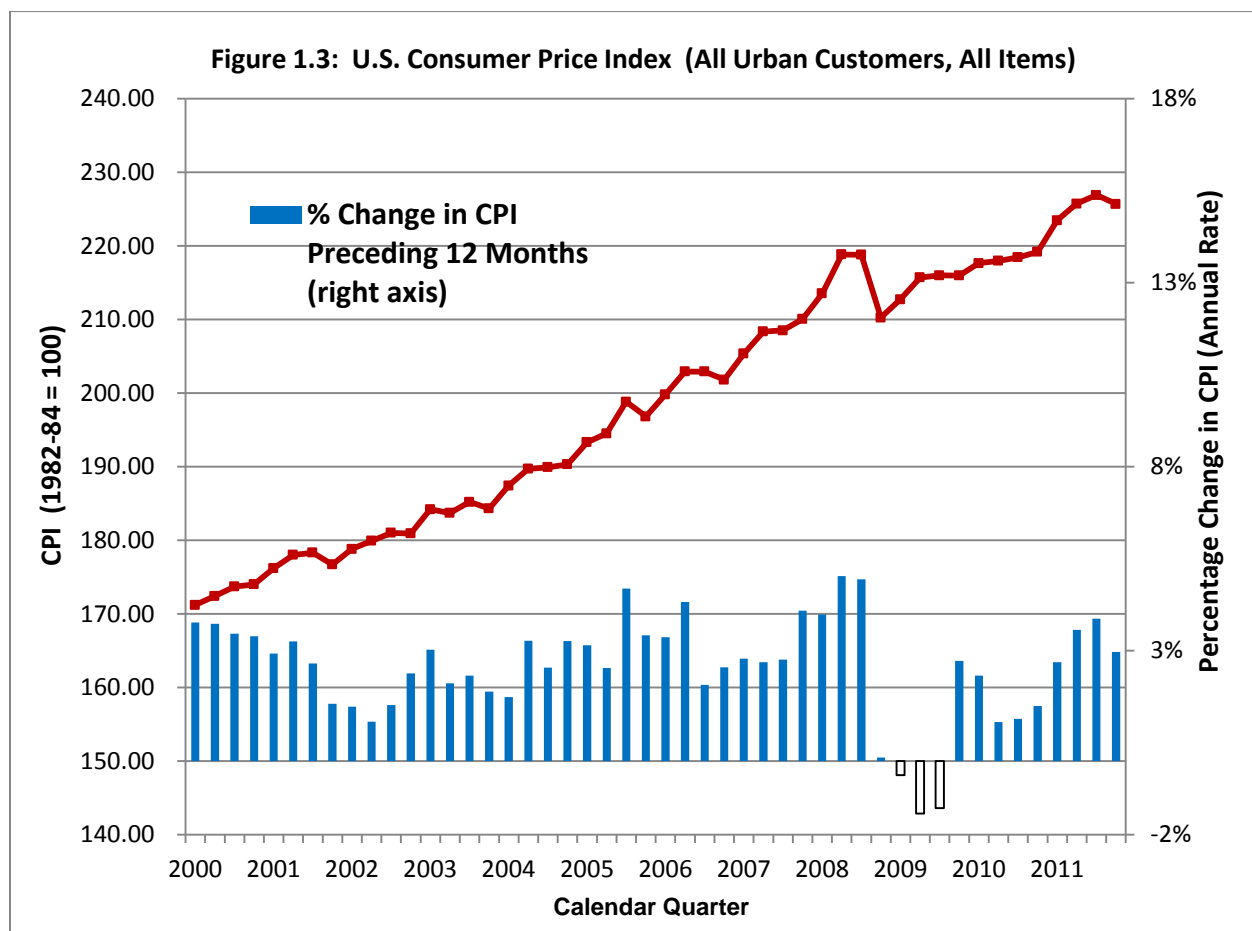
American consumers have had their confidence deeply shaken and continued uncertainty about the U.S. economic recovery has restrained their spending. Many have cut back by necessity due to job and income losses in the family. Aggregate disposable income grew at only 0.8 percent in Q4 while personal consumption was growing at 2.0 percent. The slow growth in employment and income has limited consumption growth and those who have maintained their income are saving more. But sooner or later, material goods wear out and need to be replaced.

Interest Rates. U.S. interest rates remain at or near record lows. The Fed funds rate has remained in the 0.0-0.25 percent range since December 2008 and in late January the FOMC pledged to keep rates near zero at least through late 2014. Federal Reserve Bank of Dallas President Richard Fisher, who has been a dissenter on the policy, said that he views the 2014 pledge as “that rates will stay low for as long as it is practicable” or “until we see improvement

in the economy.” Ten-year U.S. Treasury bonds closed at 1.87 percent on February 1, down from 2.00 percent on November 2011 and down from 3.48 percent on February 1 of the previous year.

Average rates on closed conventional 30-year fixed rate mortgages were at a new low of 4.27 percent in December, falling for nine consecutive months and staying below 5.00 percent for the eighteenth consecutive month.

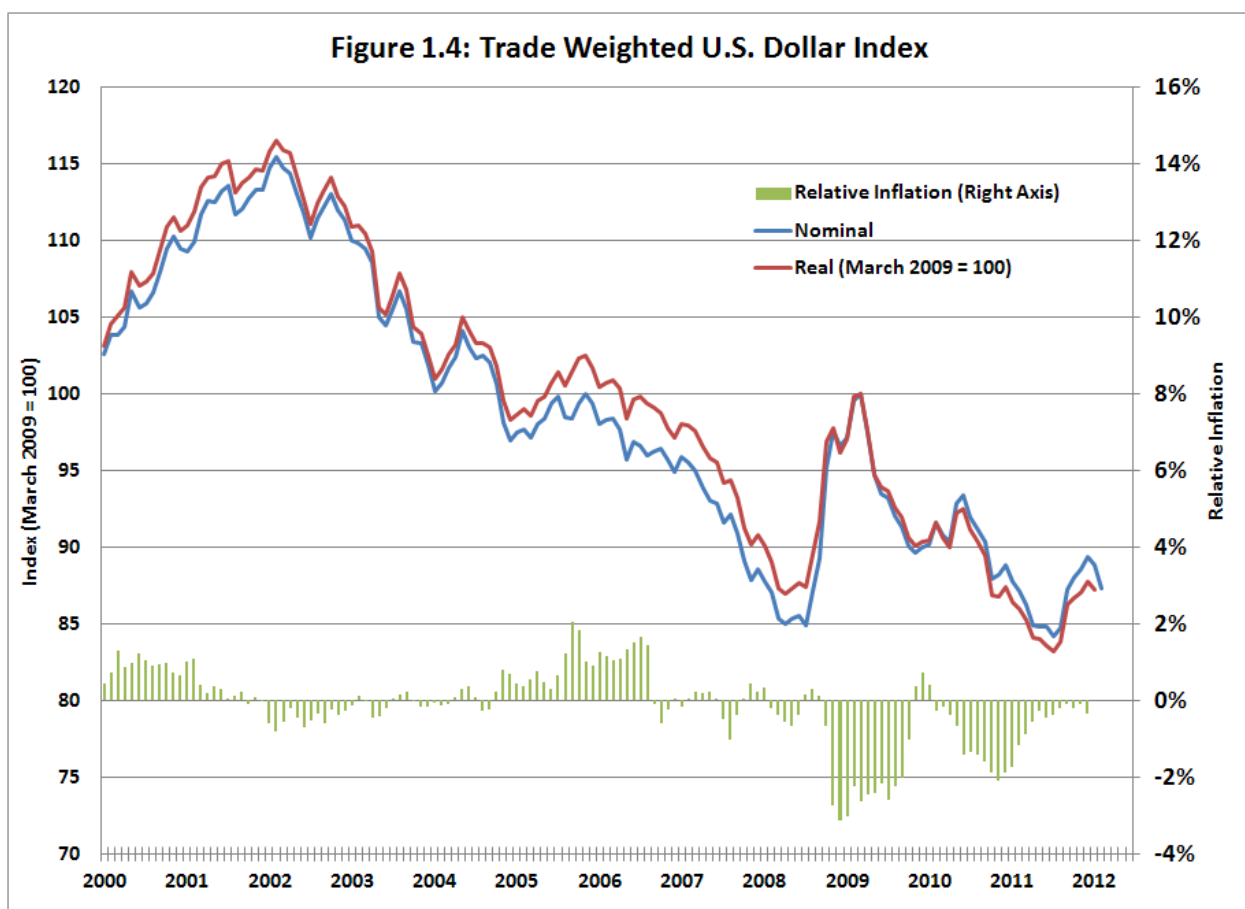
Inflation. Figure 1.3 shows the U.S. inflation rate as represented by the consumer price index (CPI) (red line). Consumer prices in the United States fell precipitously in Q4 2008 and did not reach their former mid-2008 level until Q4 2010. In effect, inflation was zero over that two year period. The CPI increased more rapidly through the first three quarters of 2011 before falling back to 3.0 percent (annual rate) in Q4.



Goods that most drove the price increases over the entire year of 2011 were: fuel oil (18.0 percent), gasoline (9.9 percent), used cars and trucks (5.2 percent), food at home (6.0 percent), and apparel (4.6 percent). Items with price increases substantially below average were gas and electric utilities (0.8 percent) and shelter (1.9 percent).

The blue bars on **Figure 1.3** show the annual percentage changes of the CPI on a year-over-year basis. The first three quarters of 2009 all had negative year-over-year inflation (white bars below the zero line in **Figure 1.3**) because these periods all included the precipitous drop in prices in Q4 2008.

The U.S. Dollar and Foreign Trade. **Figure 1.4** shows the trade-weighted U.S. dollar index for the last decade. The broad index is a weighted average of the foreign exchange values of the U.S. dollar against the currencies of a large group of major U.S. trading partners. In July 2011, the index in real terms fell to its lowest point in the history of the data series--which was started in January 1973-- or the lowest point in over 38 years (see **Figure 1.4**). At the low, the U.S. dollar index was off 29 percent from its high in early 2002. Since July, the dollar has strengthened off the bottom.



When the dollar declines, it makes U.S. produced goods cheaper and more competitive when compared to foreign produced goods. This helps increase U.S. exports, boosting economic growth. However, it also leads to higher prices for imports which is part of the reason oil and gasoline prices have been increasing in dollar terms.

In 2011, the total U.S. trade deficit was \$558 billion, which is the difference between \$2.10 trillion in exports and \$2.66 trillion in imports. The United States actually had a \$179 billion surplus on trade in services but this was outweighed by the much larger \$737 billion

deficit on trade in goods. In 2011, the U.S. trade deficit was 27 percent when expressed as a percentage of exports, unchanged from 2010. Because of our economy's thirst for crude oil, the trade item which has far and away the largest contribution to the trade deficit is petroleum products. In an interesting development, the United States has recently become a net exporter of refined petroleum products. Trade with China accounts for about 50 percent of the entire U.S. trade deficit.

World economy

The U.S. economy does not exist in isolation and the world is becoming more economically interconnected. World events and the performance of other countries' economies have impacts, for better and worse, on the U.S. economy.

Europe. The Greek drama, with good potential to become a tragedy, drags on. Greece's debt crisis continues to occupy the financial news pages. Occasionally, one of the other so-called "PIIGS" (Portugal, Ireland, Italy, Greece, and Spain) countries comes to the news forefront. Even though their financial situations are not as bad as Greece's, Spain's and Italy's economies are so much larger that a government default there would have much larger negative ripple effects throughout Europe and beyond. The U.S. and China are not immune and their economies and financial systems would certainly feel shocks from an economic meltdown in Greece or larger ones from a default in Spain or Italy.

"Troika" is becoming a financial buzzword of 2012. Three parties, the European Commission (EC), the International Monetary Fund (IMF), and the European Central Bank (ECB) have taken direct control over the modern European Union's financial future in an attempt to keep the euro together. This group of three is responsible for the new austerity measures rolling out in Greece and being met with riots on the streets of Athens. There are growing doubts outside Greece, even in a leading German publication, over the troika's Greece debt strategy:

The plan to save Greece, it turns out, is based on assumptions that have proven to be hopelessly optimistic. Europe's leaders had assumed that Greece would quickly return to economic growth. But the severity of the austerity measures demanded makes that doubtful. Cuts in salaries and social spending have resulted in a dramatic drop in demand, which has accelerated the economy's contraction. Tax revenues have plunged as a result, leading to the need for even more spending cuts.

"The Troika's Policies Have Failed"
Der Spiegel
February 13, 2012

As stated in the November Forecast, any solution to the European crisis seems to be coming down to the question of how the costs to correct the financial situation will be distributed. It will probably be some combination of rescue fund contributions from the IMF and the better-off European nations, including Germany, France, and Finland; monetary policy measures by the ECB; partial write-offs of bad loans to the peripheral European countries by German and French banks; and a lower standard of living and quality of life in the affected countries. And there remains a considerable possibility that plans will fail and that Greece will default and leave the Euro.

China. China's economy has been slowing a bit, with a GDP growth rate of 9.2 percent in 2011 compared with 10.3 percent in 2010, but this is still quite impressive. In its February 6 China Economic Outlook, the International Monetary Fund (IMF) cut its forecast for China's 2012 growth rate from 9.0 to 8.2 percent, based on internal issues such as higher commodity prices, higher inflation rates, and the prospect of a housing bubble. In recent years, China built too

many housing units and now housing construction is down, home prices are falling, sales volume is down, and inventories are building (similar to recent U.S. experience). The IMF economic report said that China's growth rate would drop even more abruptly if Europe experiences a sharp recession (because it depends so heavily on exports to the West) but that "a track record of fiscal discipline has given China ample room to respond to such an external shock."

There has been much discussion and speculation of a coming "hard landing" for China's economy. Anoop Singh, director of the IMF's Asia-Pacific department, was quoted in Bloomberg on February 6 saying that was unlikely. In a February 5 CNN interview, Singapore's Prime Minister Lee Hsien Loong said China's economy may have a "rough landing, but they will get through it." Business Insider asked six experts on the Chinese economy what they thought and posted the following results on February 8:

- A one in three chance of a hard landing,
- A "bumpy" landing with a certain amount of pain,
- A soft landing, but a hard landing is an ever-present risk,
- A soft-landing in 2012, but with strong headwinds,
- China has the policy flexibility to engineer a soft landing, and
- Beijing has the fiscal flexibility to engineer a soft landing.



Part 2. Log and Lumber Industry Factors

This chapter focuses on specific factors that affect timber stumpage prices and overall timber sales revenues received by the Washington State Department of Natural Resources (DNR). Timber stumpage prices reflect demand for lumber and other wood products, timber supply, and regional and local lumber mill capacity. The demand for lumber and wood products is directly related to the demand for U.S. housing and other end-use markets.

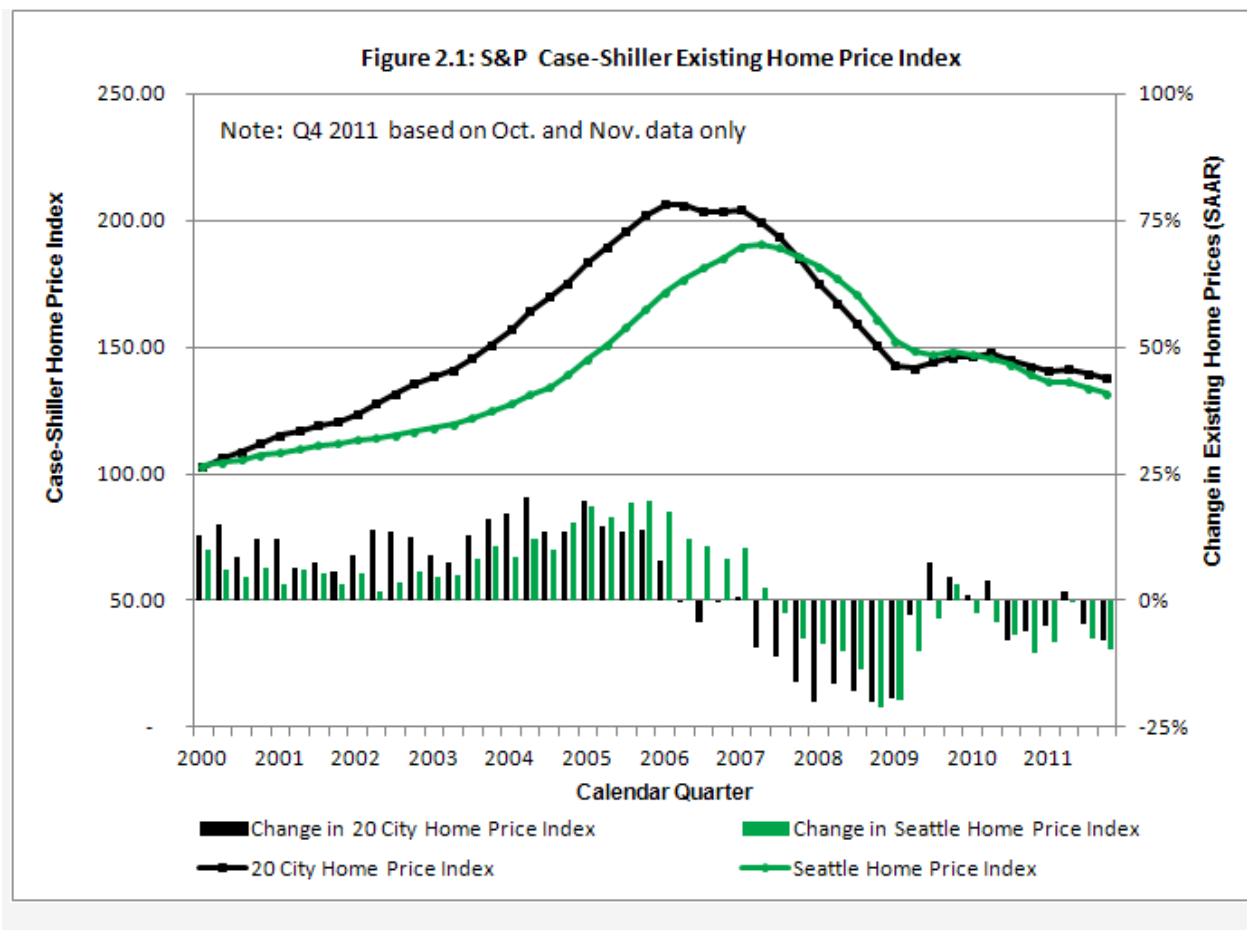
U.S. housing market

What about housing? Past recoveries typically got a jump-start from home construction and spending on household goods, such as furniture, appliances, and the like. This time though the housing market is mired in a historical state of depression. We still see millions of homes in foreclosure, and millions more on the verge. With the housing market so distressed, there's little sign that prices are poised to rise. Meanwhile, nearly 30 percent of all mortgages are currently under water, meaning that borrowers owe more than the homes are worth. No wonder that construction and new home sales are still near the lowest levels recorded since the early 1960s.

*John C. Williams, President and CEO, Federal Reserve Bank of San Francisco
in presentation to The Columbian's 2012 Economic Forecast Breakfast
Vancouver, Washington
January 10, 2012*

Housing Prices. As shown in the black line (and black bars) on **Figure 2.1**, prices of existing homes in the United States, as measured by the Case-Shiller existing home price index, a composite for 20 large U.S. cities, fell precipitously from the beginning of 2007 to the beginning of 2009, when home prices were back down to 2003 levels. They have generally been flat ever since. Although home prices moved up slightly into mid-2010, they then took another downward turn and reached a new post-2003 low in November¹, when the average existing house was worth only 67 percent of what it was worth at the peak of the real estate bubble in Q1 2006. For a second consecutive month, 19 of the 20 cities covered by the index saw home prices decrease.

¹ There is a significant time lag in the Case-Shiller index and November is the latest data available. Furthermore, the November index figure is an average of September, October and November, so it is a report of conditions several months ago.

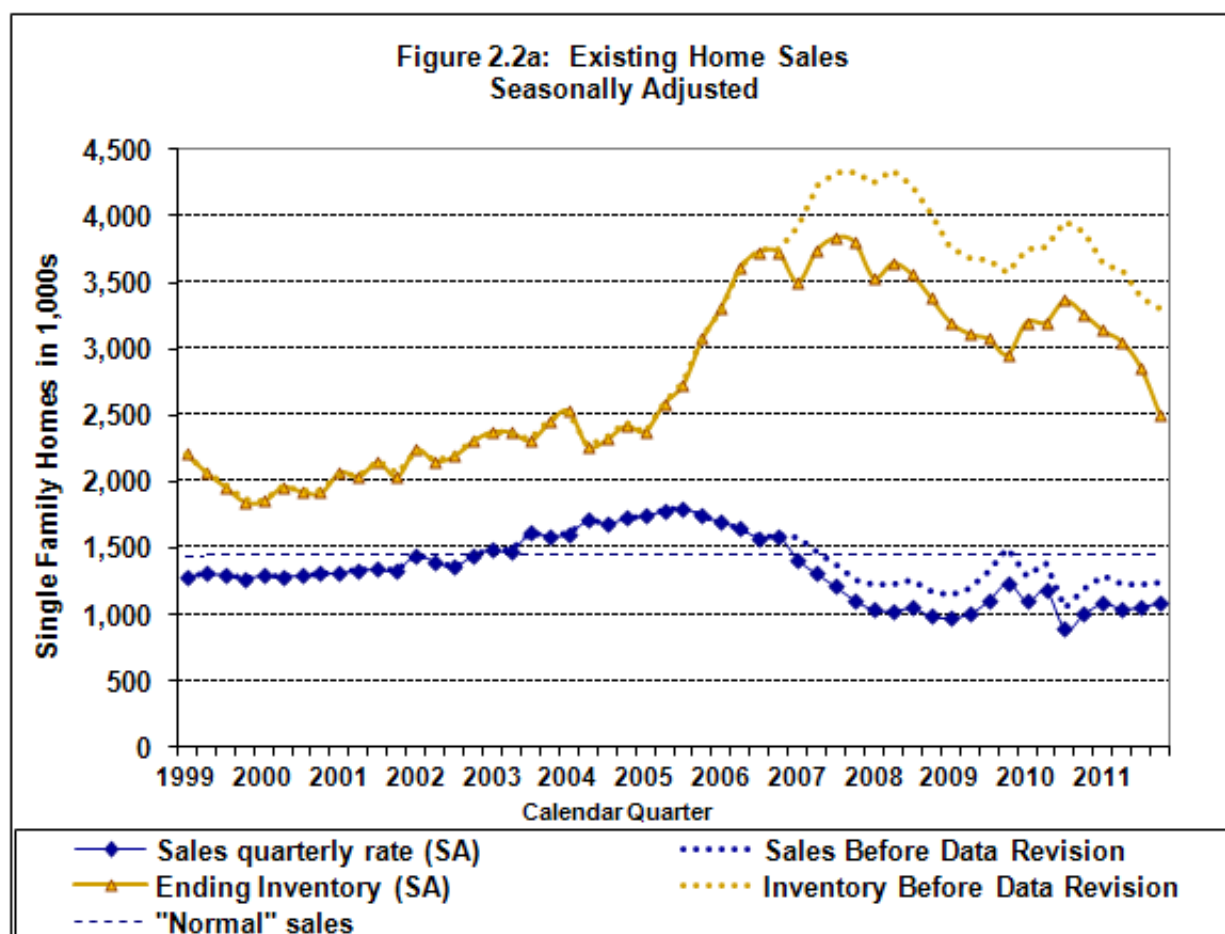


For November, the Case-Shiller existing home price index for Seattle (green line and green bars on **Figure 2.1**) again fell to its lowest level in the recession, to a level not seen since the summer of 2004. Seattle housing prices have now fallen or not changed for seventeen of the last eighteen quarters. The average existing house in Seattle is now worth only 69 percent of what it was worth at the peak of Seattle home prices in May 2007. As shown in Figure 2.1, Seattle home prices have lagged the trend in U.S. home price changes.

Bill McBride, an expert on the U.S. housing market, claims in his blog *Calculated Risk* that it now appears that home prices may bottom out soon. McBride cites the large decline in listed inventory (which means less downward pressure on house prices) and several policy initiatives (such as the proposed mortgage settlement and the HARP refinance program) that will lessen the pressure from distressed sales. He points out that there will be significant variability geographically across the United States and that areas with a large backlog of distressed properties, especially some states with a judicial foreclosure process, will probably see further price declines.

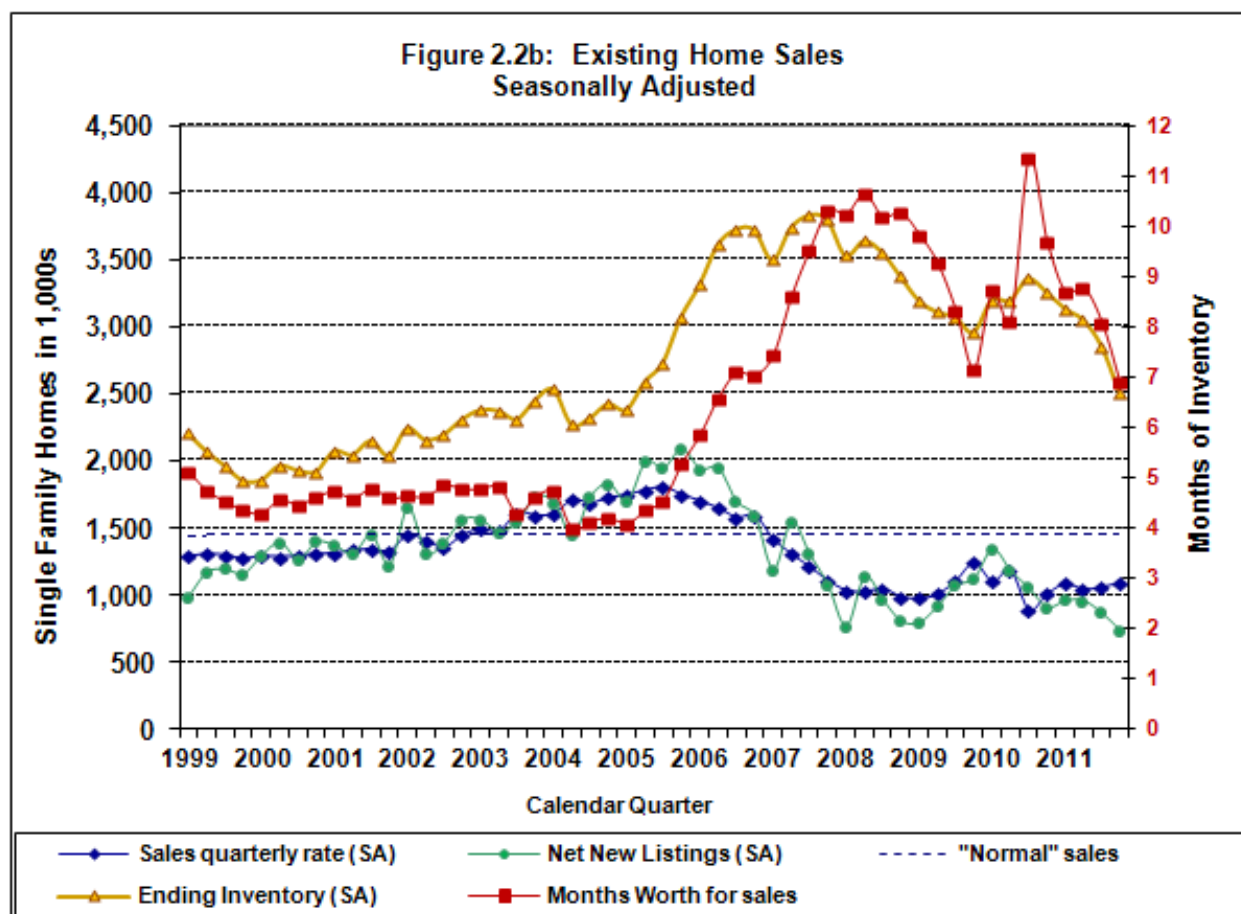
Even if home prices may be finding a bottom, this doesn't mean prices will increase significantly any time soon. Usually towards the end of a housing bust, nominal prices mostly move sideways for a few years, so real prices (adjusted for inflation) could even decline for another 2 or 3 years. But most homeowners and home buyers focus on nominal prices.

Existing Home Sales. From 1999 to 2005, the “normal” (pre-bubble) seasonally adjusted annual rate (SAAR) of existing home sales in the United States was about 1.45 million units, including single-family homes, townhomes, condominiums and co-ops (see **Figure 2.2a**). In the November Forecast, we stated that existing home sales had been hovering around 1.25 million for the last four quarters, which was an improvement over the worst quarter on record in Q3 2010 (1.04 million). But we have found out that things were actually quite worse after the National Association of Realtors (NAR) announced a rebenchmarking of their data series in December. The monthly existing home sales data was revised downward on average by 0.18 million starting in January 2007 (see **Figure 2.2a**). So now in hindsight, the statement in the November Forecast should have read that existing home sales were hovering around 1.05 million (SAAR) for the last four quarters, which was an improvement over the worst quarter on record in Q3 2010 at 0.89 million. So the blue line in **Figure 2.2a** has shifted down since 2007 from where it was shown in the November Forecast and it is even further below the “normal” sales level. The Q4 2011 level of 1.14 million is not a big improvement.



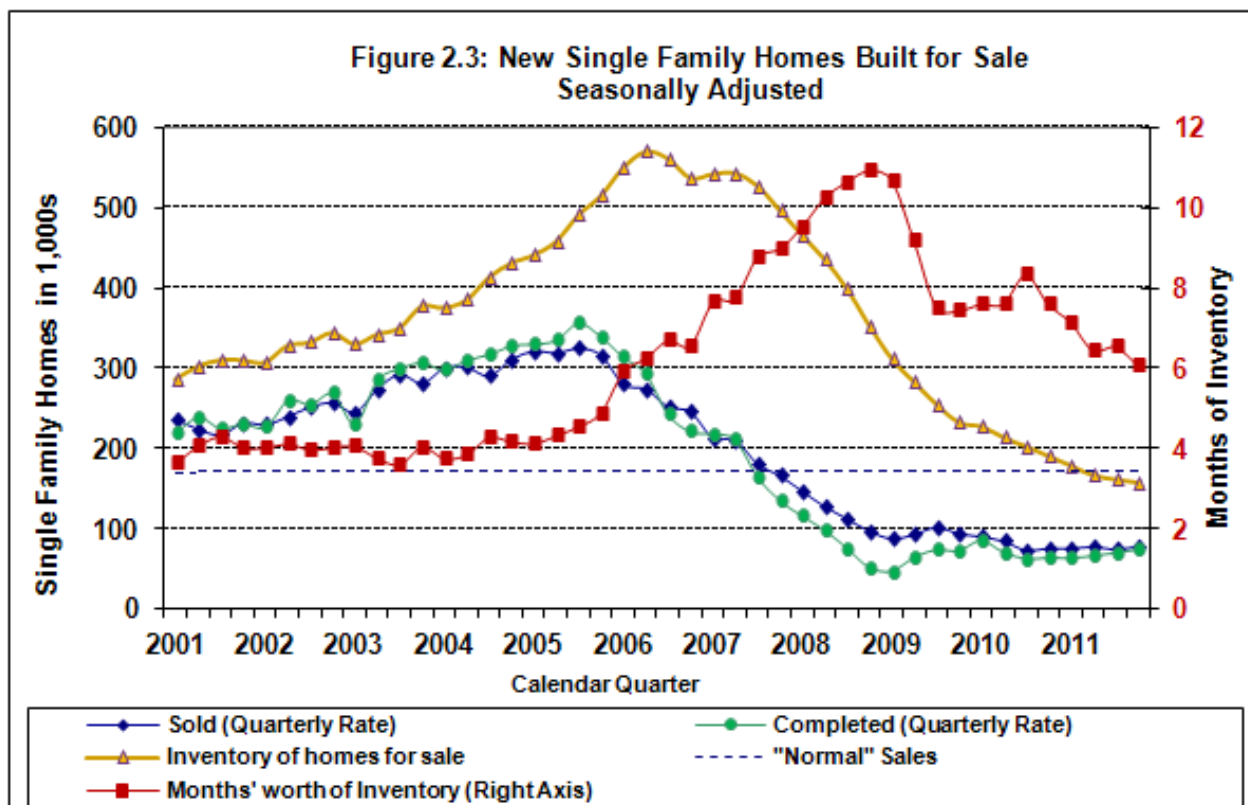
On the other hand, the number of existing homes remaining for sale and not sold (in the “inventory” was not as bad as previously thought as the NAR made even larger downward revisions to the inventory data (see the yellow lines on **Figure 2.2a**). Instead of there being as many as 4.3 million existing homes for sale throughout much of 2007 and 2008, the revised numbers peg 3.8 million as the largest inventory of listed but unsold homes. A good sign in the

housing market is that the inventory of existing homes for sale has now fallen for five quarters in a row and is now down to 2.5 million, a level not seen for almost seven years (see **Figure 2.2a**). Revisions to the existing home sales and inventory data have also changed the months' worth of sales and new listings numbers from 2007 forward since these values are calculated from the sales and inventory data. **Figure 2.2b** shows all four existing home indicators together, as revised. An encouraging trend is the sharp fall in months' worth of sales in the inventory at current sales levels (red line), now down to 6.9 months in Q4 2011 from a high point of 11.3 months in Q3 2010. This measure has been highly volatile in the last two years as federal incentive programs for home buyers have come and gone. In more normal times it is in the four to five month range (see **Figure 2.2b**).



New Home Sales. New home sales continue to be at historically low levels and 2011 was the lowest year on record with only 303,000 new homes sold (76,000 quarterly rate). This compares with the long-term (1963-2010) “normal” annual rate of 680,000 per year (170,000 quarterly rate). See **Figure 2.3**. Housing experts think that new home sales probably bottomed out in mid-2010, but they have flat lined since then.

As shown in **Figure 2.3**, new home sales and new home construction move together. Even with the low level of new home sales, the dramatic drop in new house construction has brought the inventory of newly built homes down to its lowest level in 10 years. At a high in July 2006,



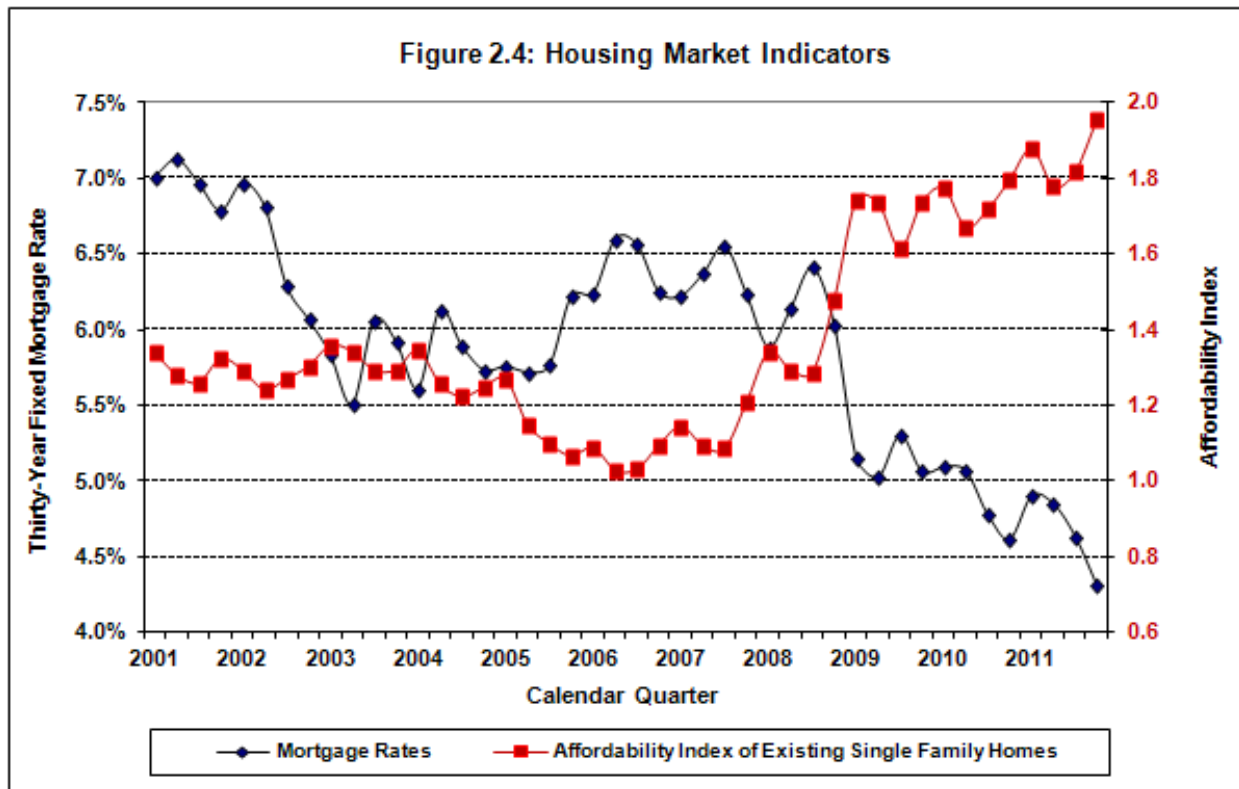
there were 572,000 new single family homes available to purchase in the United States. At the end of December 2011, there were only 157,000 available, a new record low (see **Figure 2.3**).

The months' worth of inventory of new homes for sale (at current sales rates) has worked its way down to 6.1 months in December from a monthly high of 12.2 months in January 2009 (the quarterly high was 10.9 months in Q4 2008), another good development (see **Figure 2.3**). This compares with the pre-2006 "normal" of about four months' worth of inventory of new homes. New home completions and sales won't increase significantly until the excess supply of existing homes, including those in the foreclosure pipeline, is absorbed. Reducing the inventory (supply) is a necessary part of restoring the U.S. housing market because it will contribute sooner or later to the demand for more new houses to be built.

Affordability. U.S. 30-year fixed mortgage loan rates² remain at historically low levels (see **Figure 2.4**), dropping to yet another new low of 4.27 percent in December. The 30-year fixed mortgage rate has been below 5 percent for 18 consecutive months.

The family income required to qualify for a mortgage on the \$165,100 median-priced existing single family home in the United States at December's rate of 4.27 percent is only \$31,248 per year. This compares with an average qualifying income of \$45,984 in 2008 and \$52,992 in 2007 to purchase the median priced existing single family home in those years. Median family income was \$60,901 in September, compared to an average of \$63,366 in 2008 and \$61,173 in 2007.

² The data series cited here is the national average effective rate on closed fixed-rate 30-year conventional home mortgage loans by all major lenders as reported by the Federal Housing Finance Agency.



The Affordability Index is the ratio of median family income to the income required to qualify for the median-priced existing single-family home. In December 2011, the affordability index was \$60,901/\$31,248 or 1.949.

Houses are now incredibly affordable in the Midwest, where the affordability index is 28 percent higher than the national average. In the Midwest, where the median family income is close to the national average at \$60,479, the qualifying annual income for the median priced existing family home of \$129,700 is only \$24,192.

Cyclically low housing prices and mortgage rates have resulted in very affordable housing (see **Figure 2.4**), but this has had little impact on housing demand and home sales. This is because of a combination of factors, including:

- Potential homebuyers are very hesitant to buy when prices may well still be going down.
- Many potential homebuyers are under “house arrest” in their current “underwater” mortgages, where they owe more than the current value of the home.
- Many normally potential homebuyers are unemployed or fear losing their jobs.
- Banks have severely tightened mortgage loan requirements such as requiring high down payments and excellent credit ratings.

Housing Starts.

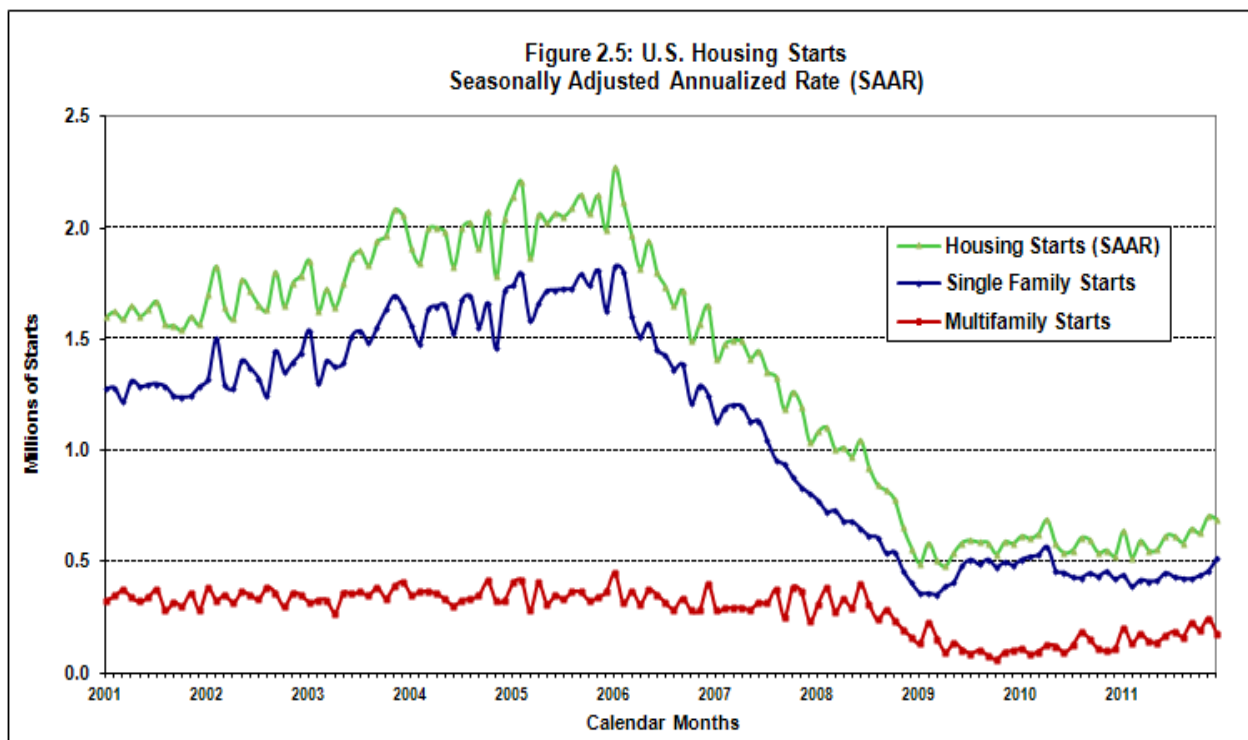
There have been some recent articles arguing the “housing bottom is nowhere in sight”. That isn’t my view. For new home sales and housing starts, it appears the bottom is in, and I expect an increase in both starts and sales in 2012.

*Bill McBride
Calculated Risk
February 6, 2012*

Most analysts are predicting the demand for new single family houses will increase some nationally in 2012, but Lake Oswego Economist Bill Conerly is tempering his enthusiasm. “Housing starts will improve in 2012,” he wrote in his annual outlook, “but a small gain from a starting point of diddly squat leaves you only marginally above diddly squat.”

*Eugene Register-Guard
February 6, 2012*

New housing starts have been moving more or less sideways at a historic low level for the last three years (see **Figure 2.5**). In April 2009, they fell to 478,000 (seasonally adjusted annual rate), the all time record low month since the Census Bureau began tracking housing starts in 1959. In November and December, new housing starts were at their three year high (see green line on **Figure 2.5**), which many economists are reading as the start of the recovery in the housing market.



The improvement is not due to single family housing starts, but rather due to multifamily starts. Single family starts fell in 2011 over the previous year, down to 429,000 (SAAR) from 471,000 the year before. However, just in the last few months, single family starts also appear to be picking up a bit (blue line).

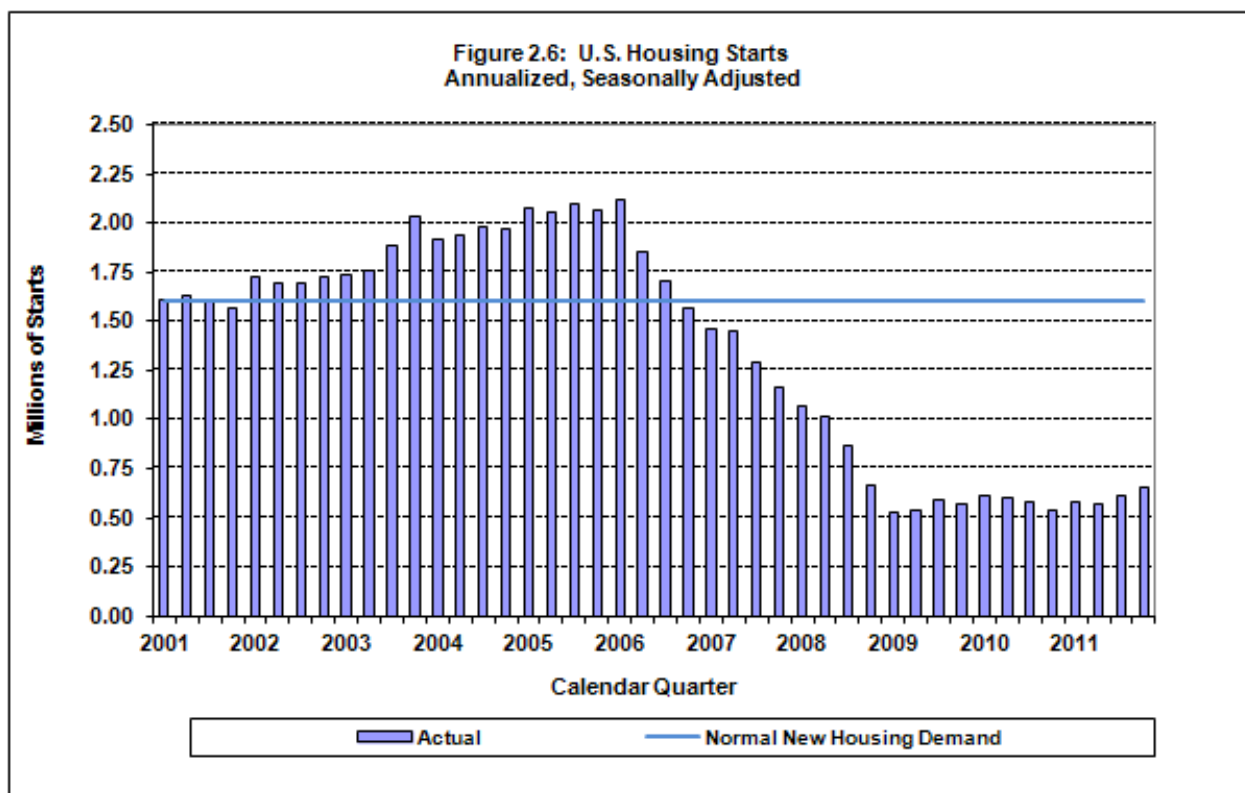
Even though multifamily housing units starts also remain in a historic low range, they are slowly rising slowly out of the trough (see red line). In 2011 there were 177,000 multifamily unit starts compared with 114,000 the year before, a 55 percent increase. According to a February 6 article on the lumber market in the Eugene Register-Guard:

The demand [for multifamily housing] is driven nationally by people who can't make payments on their homes and move to rentals, by young adults who are skipping home ownership for the present and by the construction of student housing near universities. Multifamily units, however, use only about one third of the lumber that's required to build a single-family home. You'll hear no complaints about that, however, at Seneca Sawmill. "If that's what the market wants to buy—as long as they're building them out of wood—that's fine with us."

Housing rental rates have started rising, which should further encourage the building of multifamily units.

Figure 2.6 shows the annual rate of new housing starts by quarter in the United States since 2001. The United States economy overproduced new housing units during the housing bubble (i.e., housing starts exceeded the normal 1.6 million annual rate of new housing demand). The rate then fell off dramatically from 2006 through the end of 2008 and has remained flat since then for the last three years. Like **Figure 2.5** which shows monthly data, **Figure 2.6** also shows housing starts turning up in the last quarter, but housing starts remain historically low and there hasn't yet been a breakout.

One favorable indicator is that home builder confidence, which like housing starts had been moving sideways at a very depressed level for several years, has been moving up recently. The National Association of Home Builders (NAHB) reports the housing market index (HMI) increased in February to 29 from 25 in January. Any number under 50 indicates that more builders view sales conditions as poor than good. So while their confidence is still low, they are becoming less pessimistic. The index has increased for five consecutive months and stands at its highest level since May 2007.



But the economy is depressed, in large part, because of the housing bust, which immediately suggests the possibility of a virtuous circle: an improving economy leads to a surge in home purchases, which leads to more construction, which strengthens the economy further, and so on. And if you squint hard at recent data, it looks as if something like that may be starting: home sales are up, unemployment claims are down, and builders' confidence is rising.

*Paul Krugman
New York Times
January 22, 2012*

Lumber, log, and timber stumpage prices

Lumber Production and Capacity Utilization. There continue to be curtailments and closures at U.S. and Canadian lumber mills, including some of DNR's dependable timber purchasers. According to Random Lengths, "North American lumber mills have plenty of idle capacity that could be ramped up should market conditions warrant it. However, producers will carefully weigh the costs of logs and additional employees before making any decisions to crank up their output."

In 2004, when lumber prices were at a high peak, mills in the U.S. West (comprised of the Coast, Inland, and California Redwood timber areas) produced 18.8 billion board feet (bbf) of softwood lumber while operating at a historically strong 93 percent of their plant capacity. By 2009, lumber production in the West had fallen to 10.2 bbf, using only 53 percent of the capacity, which was now over five percent lower. In 2010 and 2011, the respective numbers for lumber production in the West were up to 11.3 bbf and 11.1 bbf, capacity was virtually unchanged, and capacity utilization was up to 59 and 58 percent.

Total U.S. lumber mill capacity utilization was at 60 percent in 2010 and 61 percent in 2011; it is projected to improve somewhat to 64 and 69 percent in 2012 and 2013 respectively. It is estimated that the demand/mill capacity ratio in the North American softwood lumber market needs to be above 80 percent before the lumber sector can achieve a sustained recovery with higher prices. It is projected that the ratio will jump above 80 percent again in 2014, but the timing may prove to be optimistic.

Log Exports. The explosion of log exports to China has been big news in the Pacific Northwest forest products sector in the last couple of years. The USFS Pacific Northwest Research Station reported that West Coast (Washington, Oregon, northern California, and Alaska) log exports increased 42 percent, from 1404 to 1992 mmbf, in 2011 compared to 2010. The value of the exported logs increased even more at 54 percent, going from \$844 million to \$1297 million. China now imports more logs from the West Coast than any other country in the world. Log exports to China totaled 61 percent of West Coast log exports in 2011 (and 46 percent of all U.S. log exports). Washington and Oregon accounted for 83 percent of West Coast log exports to China in 2011.

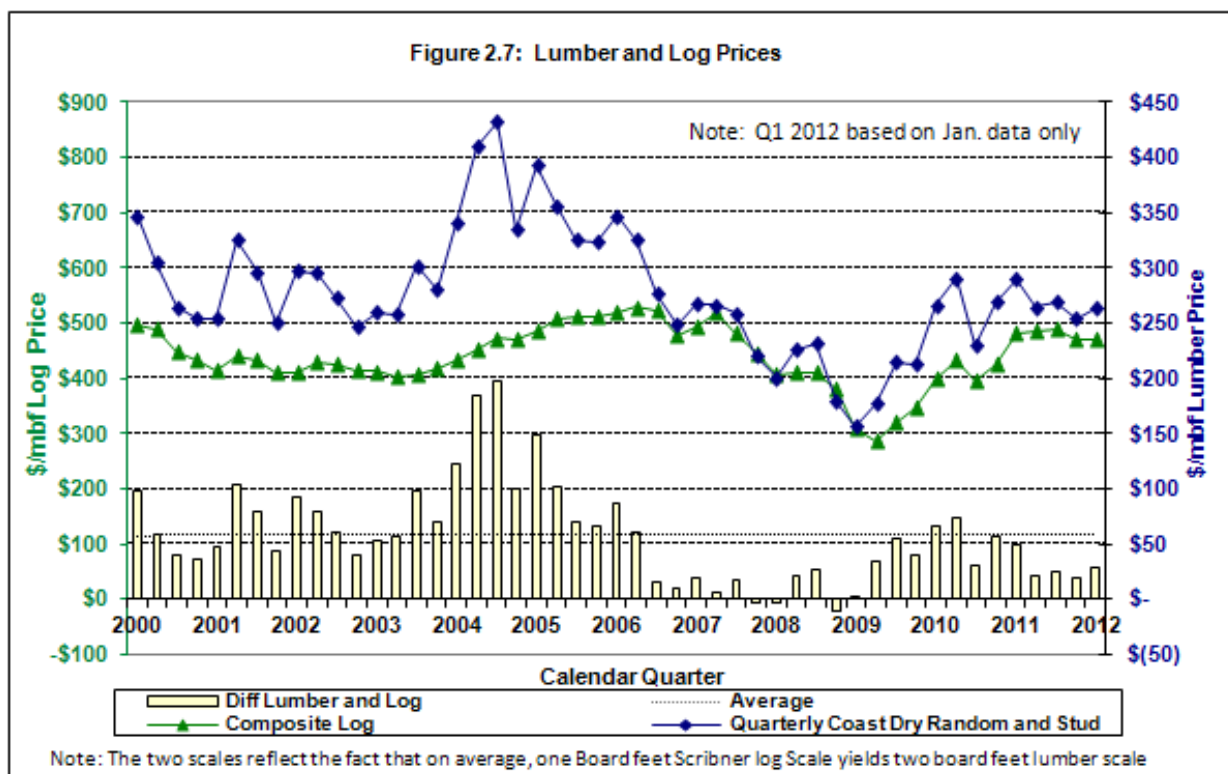
China buys the Pacific Northwest's softwood to rip it into furring strips, which are similar to one-inch boards. The new housing in China is mostly concrete and the furring is used as a subfloor and as wall coverings to warm up the rooms. Another major use of imported softwood logs and lumber in China is to make wood forms for pouring concrete in construction projects.

China's log buying in the Pacific Northwest slowed in Q3 2011 as it had more logs coming in than its port and sawmill infrastructure could handle. The slowdown continued in Q4 (down 35 percent from Q3), primarily due to reduced activity in the housing sector.

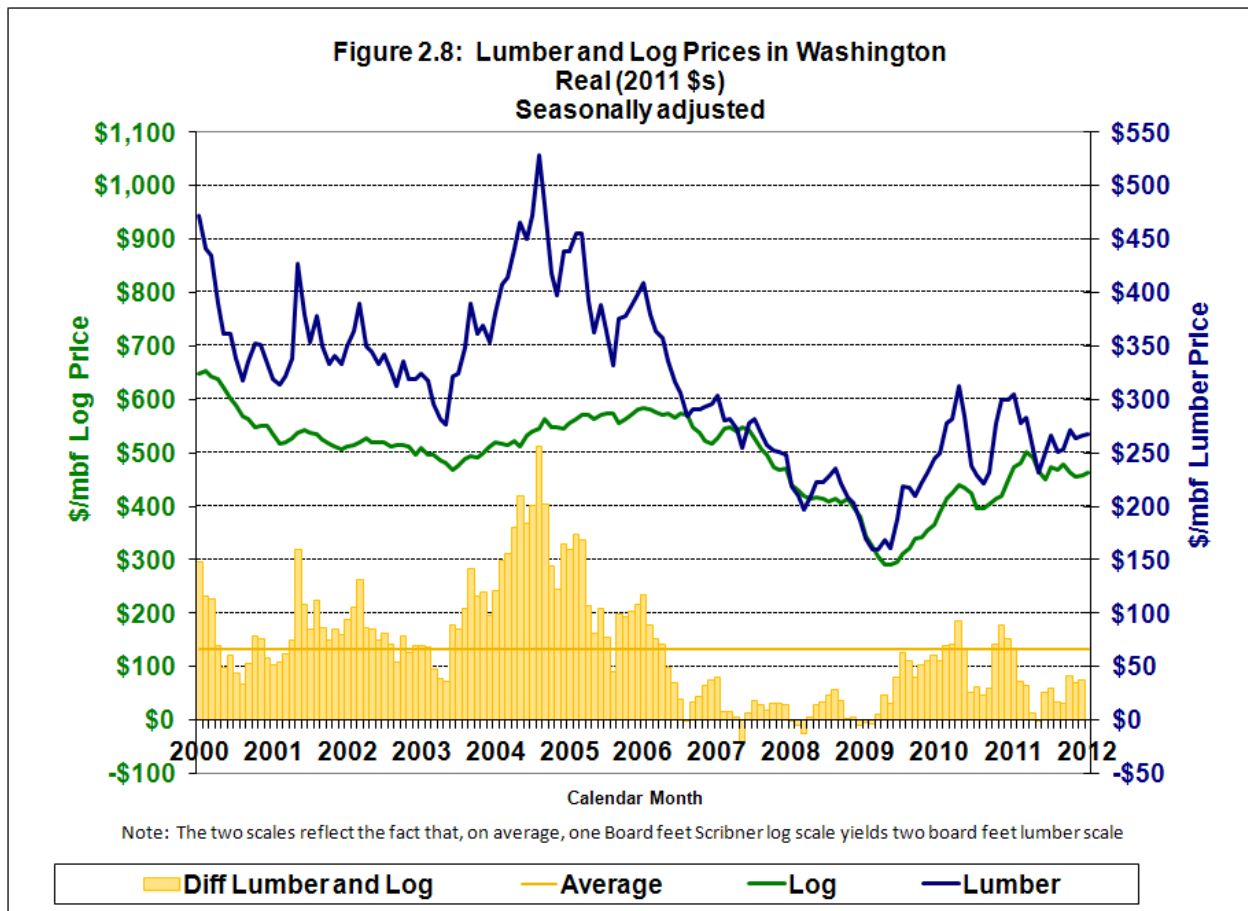
This is likely a temporary slowdown, but China's future demand for Washington and Oregon logs will depend on the continued strength of China's economy and its high level of construction activity. Another factor of course is log pricing. China is very price conscious in its acquisition

of raw materials and commodities around the world. Log exports to China from the Pacific Northwest picked up as regional log prices in real terms were relatively low in recent years. If Coastal log prices rise too high, China will look to other regions of the world for supply or to substitute materials (e.g., lumber from Canada).

Lumber and Log Prices. Figures 2.7 and 2.8 show lumber and log prices in Washington and their relationship since 2000. Log prices are the prices paid for logs delivered to the mill. **Figure 2.7** shows quarterly nominal prices and **Figure 2.8** shows monthly real seasonally adjusted prices. Both lumber and log prices have significantly improved from their extreme lows in 2009. The lumber price (real SA) bottomed at \$159/mbf in February and March of 2009 and rose to hit highs of \$313/mbf in April 2010 and \$304/mbf in January 2011 (see **Figure 2.8**). In January 2012, the lumber price stood at \$268/mbf. Composite log prices have shown less volatility, as they usually do, rising from a low of \$291/mbf (real SA) in April and May of 2009 to a high of \$501/mbf in April 2011. The January price for logs is at \$464/mbf.

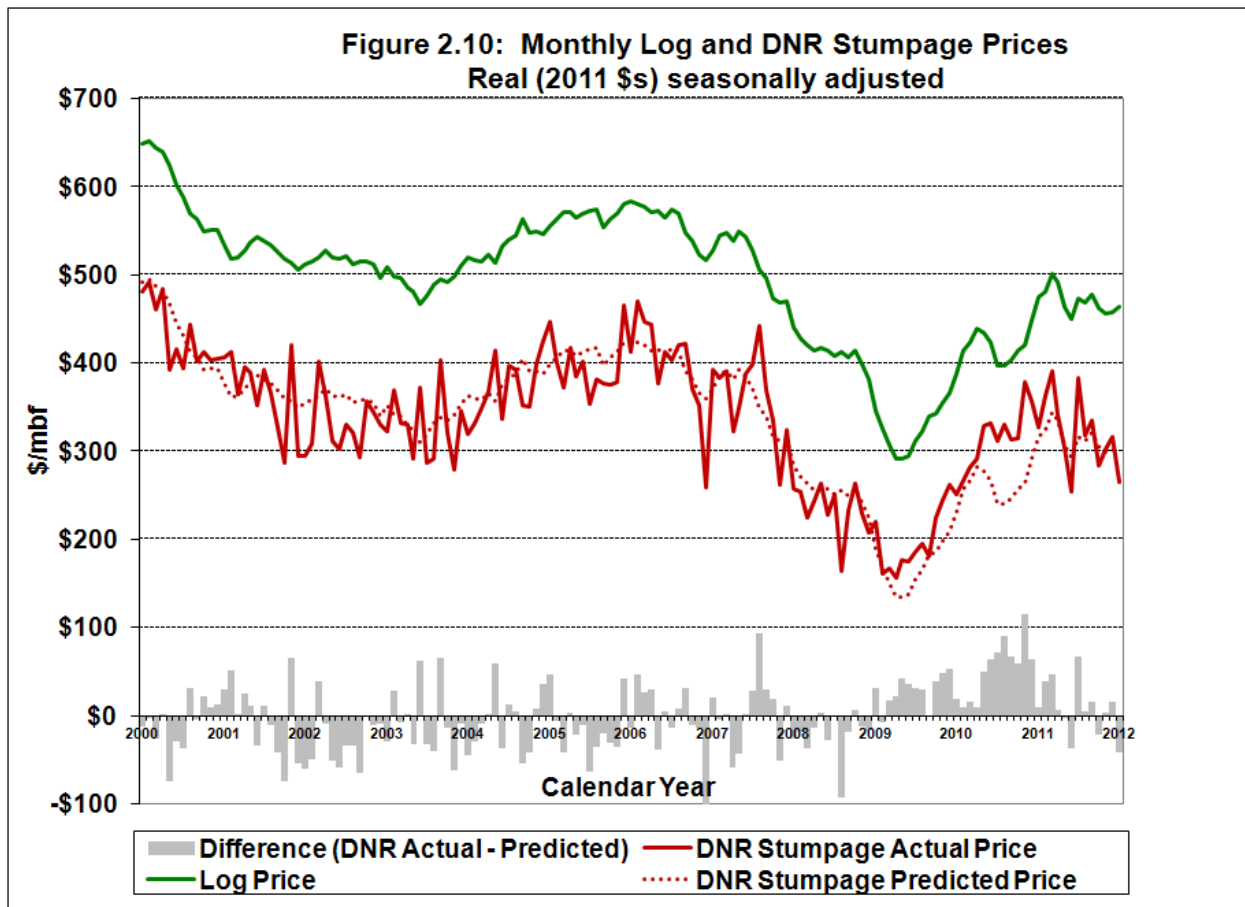
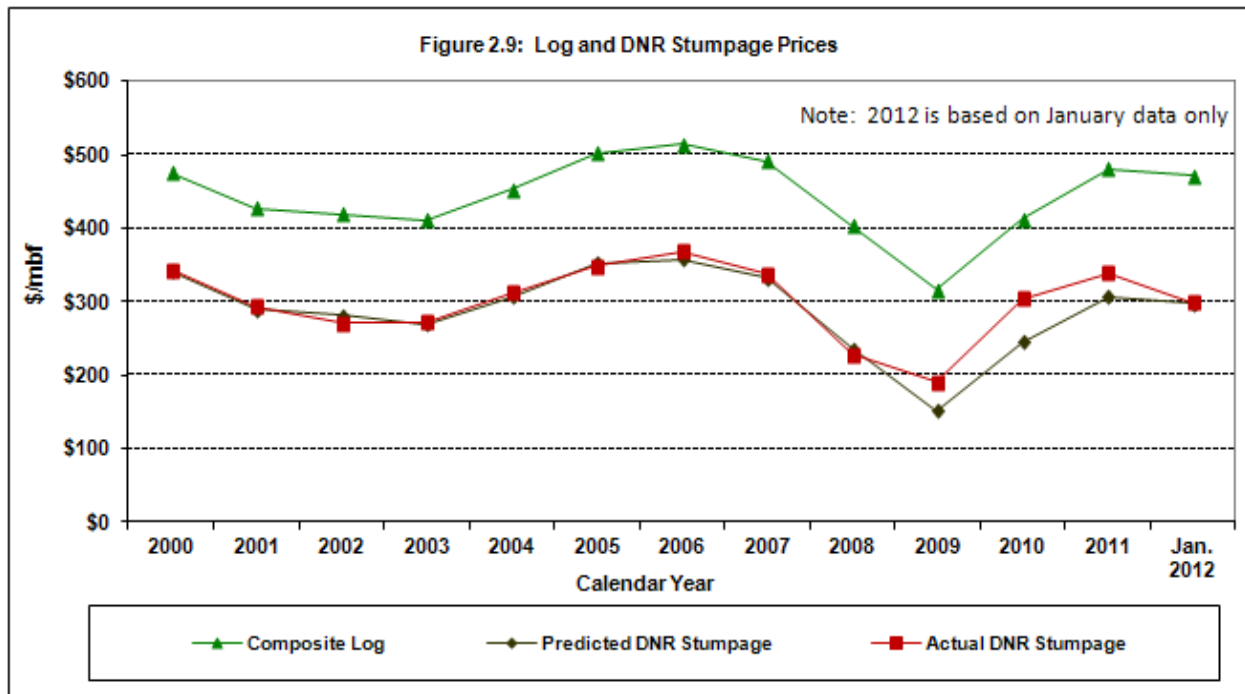


The last several years have been an especially difficult time for lumber mills as lumber prices have been low and log prices have rebounded due to the influence of exports to China. Many Pacific Northwest mills have been forced to undertake curtailments or close because log prices have been too high relative to lumber prices. Victims of economic conditions, two Snohomish County lumber mills have announced closures since the beginning of 2012. Snohomish-Seattle Mill Company in Snohomish, which had operated since 1941, employed 50 workers and Northwest Hardwoods in Arlington, which had operated since 1967, employed 60.



Log and DNR Stumpage Prices. Figure 2.9 shows prices for logs, predicted DNR stumpage, and actual DNR stumpage on an annual basis since CY 2000. The “composite log price” represents prices for logs delivered to mills weighted by the average geographic location, species, and grade composition of timber typically sold by DNR. After the low in 2009, average annual log and stumpage prices improved in both 2010 and 2011. Figure 2.9 has only one data point for 2012—January—so not too much should be read into it, especially since DNR timber sales prices have high month-to-month volatility.

Figure 2.10 shows the same relationship but on a monthly basis with seasonal adjustment and in real 2011 dollars. The bars at the bottom of the graph show by how much actual DNR stumpage prices are above those expected given log prices. Figure 2.10 shows the upturn in log and DNR stumpage prices since the extreme low point in April 2009. Even with this extreme price volatility, there does seem to be a downward trend in DNR stumpage prices since the recent high in March 2011.





Part 3. DNR's Revenue Forecast

This Revenue Forecast includes Department revenues from timber sales on trust lands, leases on trust uplands, and leases on aquatic lands. It also forecasts revenues to individual funds, including DNR management funds, beneficiary current funds, and beneficiary permanent funds. Some caveats about the uncertainty of forecasting Department revenues are summarized near the end of this section.

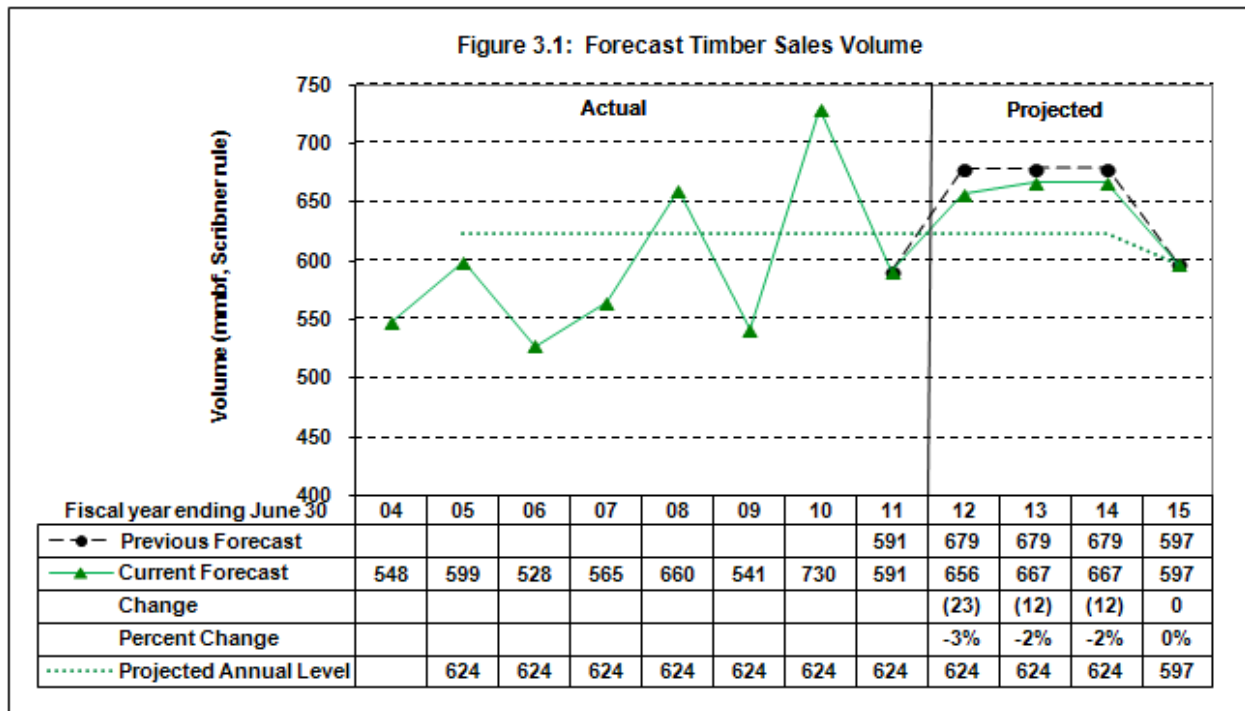
Timber revenues

The Washington State Department of Natural Resources (DNR) sells timber through contracts. The Department determines the total volume to be offered for sale each month and the minimum bid for each timber sale. The sale is awarded to the highest bidder and the average sales price (\$/mbf) is set at the time of auction. DNR collects a 10 percent initial deposit at the time of sale and holds it until the sale is completed. Revenues are collected at the time of harvest (removal). The initial deposit is credited as the last 10 percent of timber is harvested.

Contracts for DNR timber sales sold in calendar 2011 varied in duration from three months to three years, with an average (weighted by volume) of about 20.3 months. The purchaser determines the actual timing of harvest within the terms of the contract. As a result, timber revenues to beneficiaries and DNR management funds lag current market conditions. Currently, that lag is about 12 to 14 months.

Timber that is sold but not yet harvested is referred to as “volume under contract” or “inventory”. Timber volume is added to the inventory when it is sold and placed under contract and it is removed from the inventory as the timber is harvested.

Timber Sales Volume. The Board of Natural Resources (Board) sets the level of sustainable harvest for Washington forests managed by DNR. In 2007, the Board adjusted the sustainable harvest level for the current sustainable harvest decade (FY 2005 through FY 2014) for western Washington forests to 5500 mmbf, for an average of 550 mmbf per year. The Board has not addressed the sustainable harvest level for eastern Washington since 1988, when it approved a level of 87 mmbf per year. For Forecast purposes, the current Board-approved level of 550 mmbf for western Washington is combined with a timber sales level for eastern Washington estimated to average 74 mmbf per year over the current western Washington sustainable harvest decade, resulting in a projected annual statewide timber sales level of 624 mmbf per year (see **Figure 3.1**).



After the first seven years of the sustainable harvest decade, DNR timber sales in western Washington averaged less than the target annual western Washington timber sales level. In order to make up the cumulative shortfall, the western Washington target harvest level for the final three fiscal years of the sustainable harvest decade is 607 mmbf. For eastern Washington, 60 mmbf is the target harvest level for each of the last three years of the decade. Adding the two numbers together yields a statewide total of 667 mmbf. This 667 mmbf target level is a downward revision from 679 mmbf in the November Forecast, based on conforming this number with historical timber sales data maintained in the timber sales program.

It is now obvious that DNR will not make the eastside target of 60 mmbf in FY 2012 and that 49 mmbf is a more likely eastside timber sales volume, resulting in a further downward revision of the FY 2012 target sales volume to 656 mmbf.

It may be difficult for DNR to make these target timber sales volumes of 656, 667, and 667 mmbf for FYs 2012-2014 given that sales have exceeded the average annual target of 624 mmbf in only two of the first seven years of the sustainable harvest decade. In addition to the normal operational challenges of public agency timber sales, market conditions have negatively affected DNR's potential timber purchasers in the forest products industry. Pacific Northwest sawmills continue to go through closures and curtailments. On a positive note, however, the number of "no bids" on DNR timber sales has dropped dramatically. Last year in a four month period from April through July, 35 percent of the timber volume offered, or 97 mmbf out of 274 mmbf, did not sell. In the last four months, November through January, only eight percent of the volume offered, or 14 mmbf out of 186 mmbf, did not sell. During this period, most of the previous no-bid sales have now successfully sold upon reappraisal.

Potential environmental and policy issues, especially regarding marbled murrelet habitat, will contribute to the difficulty of reaching the relatively higher timber sales targets for the next three consecutive fiscal years as well. Also, state workers have had their salaries and work hours reduced by 3 percent for FYs 2012 and 2013 and this will reduce output, potentially impacting the DNR timber sales program.

The last year of the forecast period, FY 2015, is the first year of the next sustainable harvest decade (FY 2015 through FY 2024) for western Washington. The Department will recalculate the sustainable harvest and anticipates that the Board will adopt a new sustainable harvest level for western Washington before the next decade begins. Until next decade's new level is formally established, the Forecast will use the Department's estimated western Washington sustainable harvest for the next decade of 537 mmbf plus eastern Washington timber sales of 60 mmbf for FY 2015 to arrive at a projected timber sales volume of 597 mmbf for FY 2015.

Timber Removal Volume. At the end of December, the Department had 437 mmbf of timber valued at \$138.8 million under sales contract. This is a large decrease in the volume under contract from the 526 mmbf at the end of September (and referenced in the November Forecast), and it is a large decrease in the value from \$164.4 million.

For each Forecast, we survey DNR timber sale purchasers to determine their planned timing of removals from the timber volume they have under contract at the time of the survey. This Forecast's survey, conducted in the first half of January, indicates that purchasers plan to harvest 183 mmbf, 42 percent, of the volume remaining under contract this fiscal year (FY 2012) and 197 mmbf (45 percent) and 57 mmbf (13 percent) of the existing inventory in FYs 2013 and 2014 respectively (see **Figure 3.2** for detail). The results of the survey indicate that purchasers are deferring harvests and that volume previously planned for removal in FYs 2012 and/or 2013 will be delayed into FYs 2013 and/or 2014 (see **Figure 3.3**).

In year-to-date FY 2012 through December, timber sale purchasers removed 299 mmbf (see **Figure 3.2**). Nearly one-third of this, or 92 mmbf, was removed in November. Together with the expected removals of 183 mmbf from volume under contract at the end of December (as indicated by the purchasers' survey) plus 44 mmbf projected to come from future FY 2012 timber sales from January through June 2012, this brings the forecast of total timber removals for FY 2012 to 526 mmbf—a 65 mmbf, or 11 percent, decrease from the 591 mmbf projected in the November Forecast (see **Figures 3.2 and 3.3**).

The level and timing of projected timber removal volumes are changed in this forecast as a result of the projected sales volumes being reduced in combination with the purchasers' plans to delay some of their harvests. As a result, projected timber removal volumes for the current biennium, 2011-2013, are reduced by 101 mmbf, or 8 percent, from the September Forecast. Forecast volumes for the 2013-2015 Biennium are increased by 15 mmbf, or 1 percent (see **Figure 3.3**).

At the end of FY 2011, there was about 10.9 months' worth of volume under contract. We expect the inventory to increase to about 13.8 months' worth at the end of FY 2012 and to be about 12.8 months worth at the end of FY 2013 based on purchasers' plans to defer harvest of the existing timber inventory under contract.

Figure 3.2: February 2012 Revenue Forecast
Forecast Timber Removal Volume (as of end of December 2011)

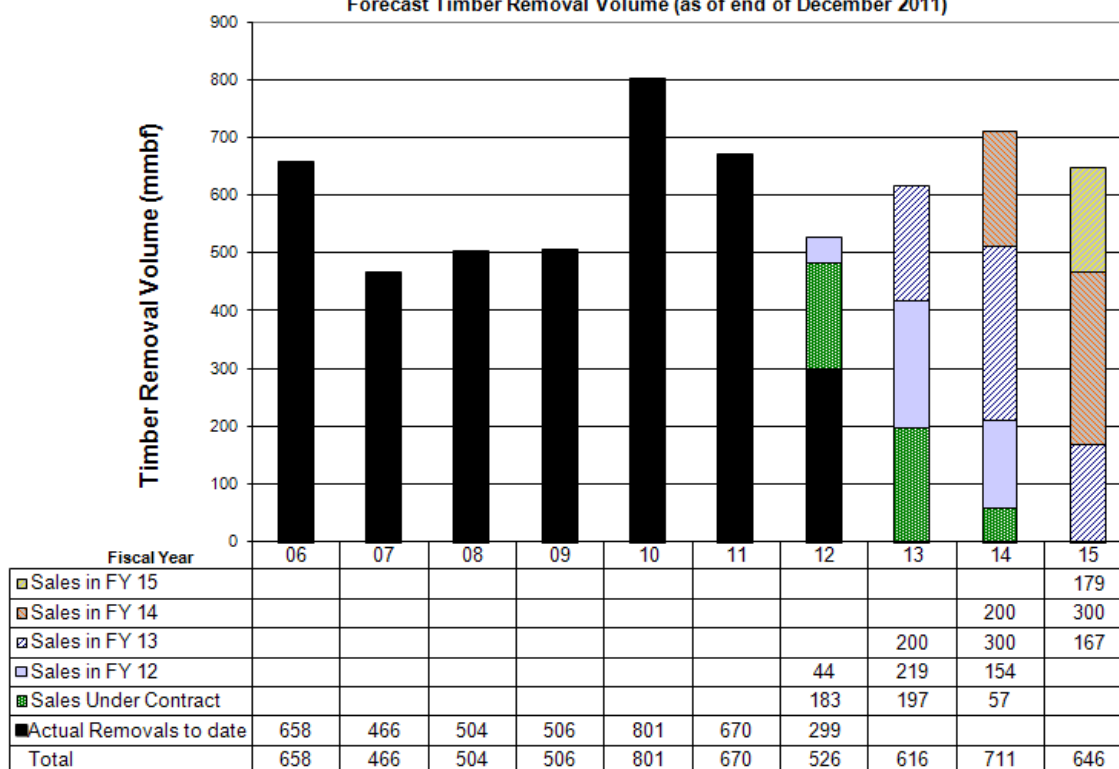
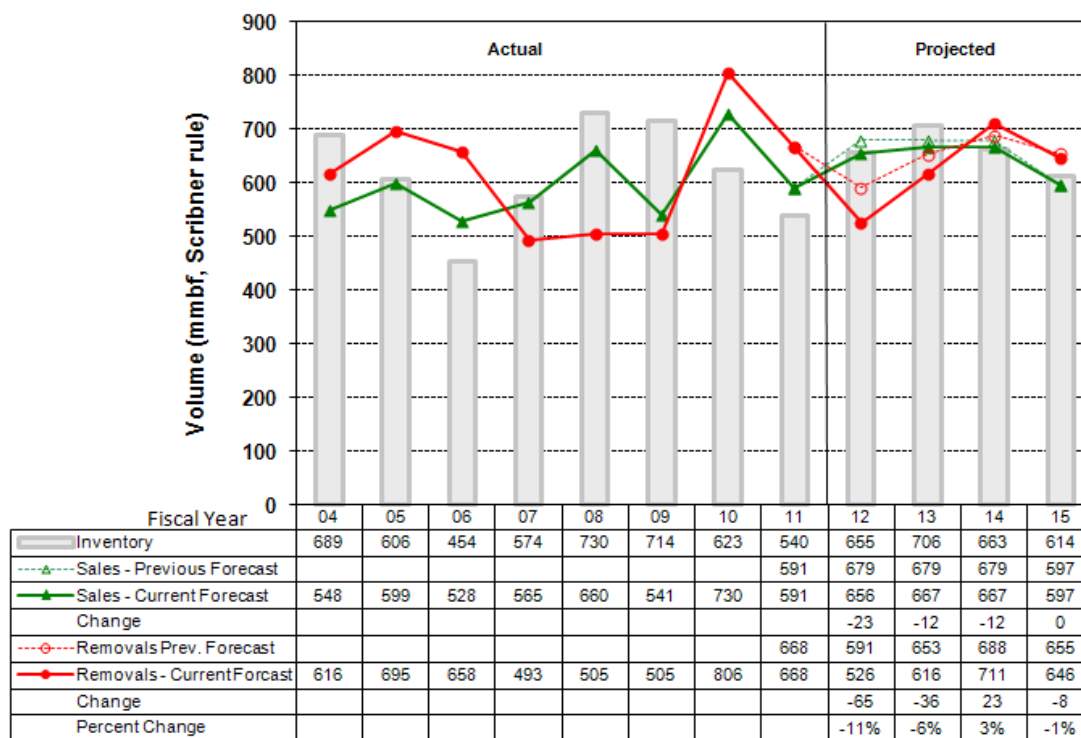
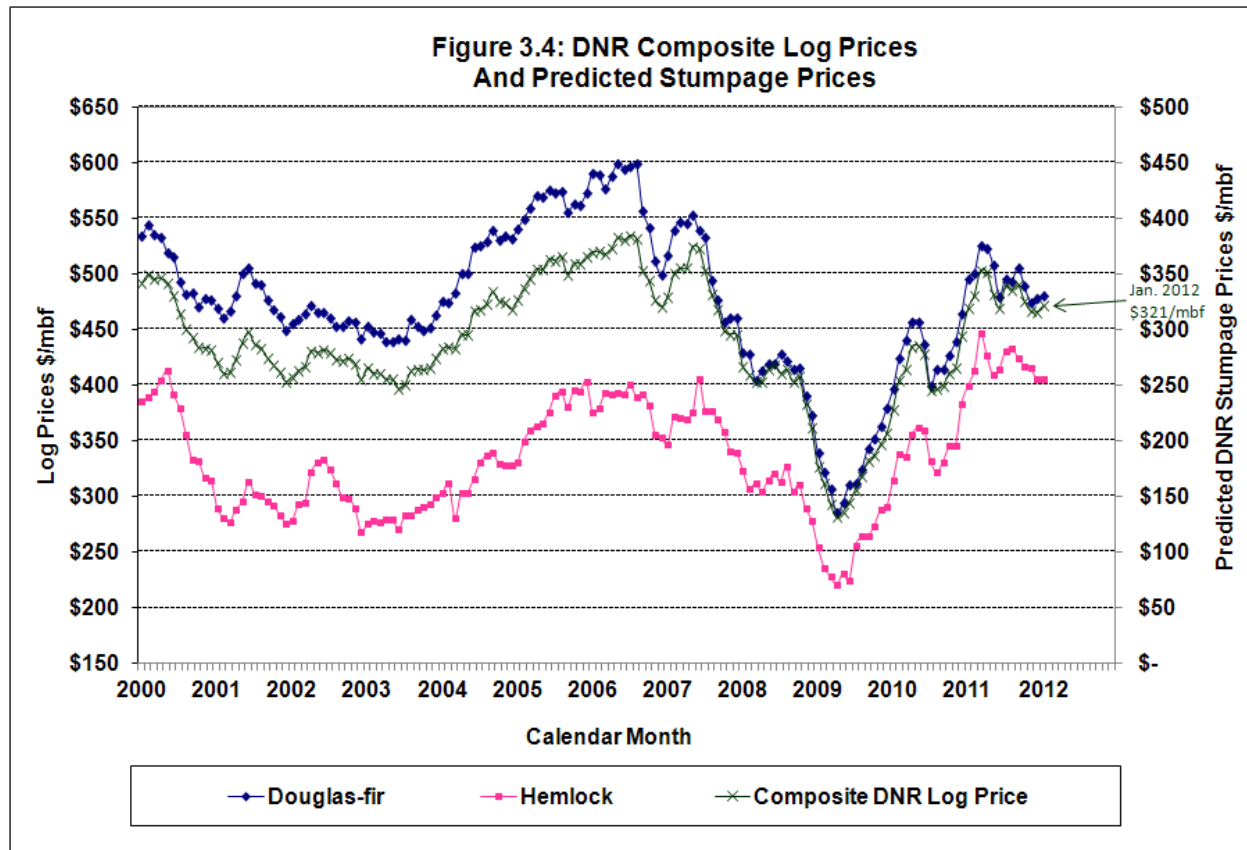


Figure 3.3: Timber Volume - Sales and Removal

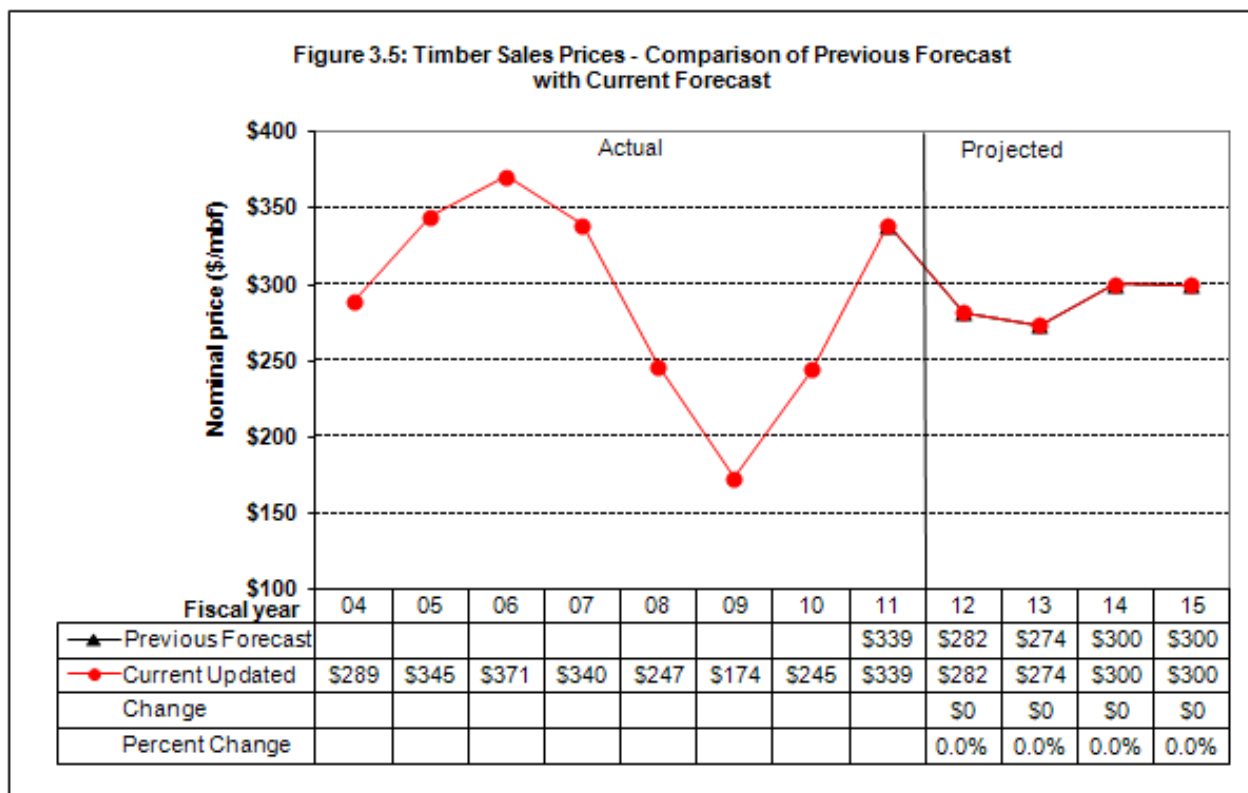


Timber Sales Prices. Composite log prices (weighted by species) are used to predict actual stumpage prices for DNR timber sales (using the formula composite log price minus \$150/mbf for logging costs). The composite projected stumpage price reached a recent high of \$353/mbf in March 2011, the highest level since June 2007 (see **Figure 3.4**). Since then, it has generally fallen and stands at \$321/mbf in January.



Actual results of monthly DNR timber sales (shown in **Figure 2.10** in seasonally adjusted terms and in real 2011 dollars) are more volatile. In FY 2011, monthly timber sale prices were mostly above \$300/mbf and averaged \$339/mbf weighted by volume (see **Figure 3.5**). For the first seven months (through January) of FY 2012, the average volume-weighted price is \$329/mbf.

In the absence of a recovery in the U.S. housing market, the higher stumpage prices for DNR timber sales in FY 2011 and early FY 2012 can be attributed to the sharply increased level of Pacific Northwest log exports from private forest lands to China (logs from DNR managed state lands cannot be exported). A large majority of logs harvested on private lands in the Coast region in this period were exported to East Asia at prices higher than the region's sawmills could bid. This helped drive up the price for DNR logs as they made up the major remaining source of supply to the region's lumber mills. However, the relationship of higher log prices and lower



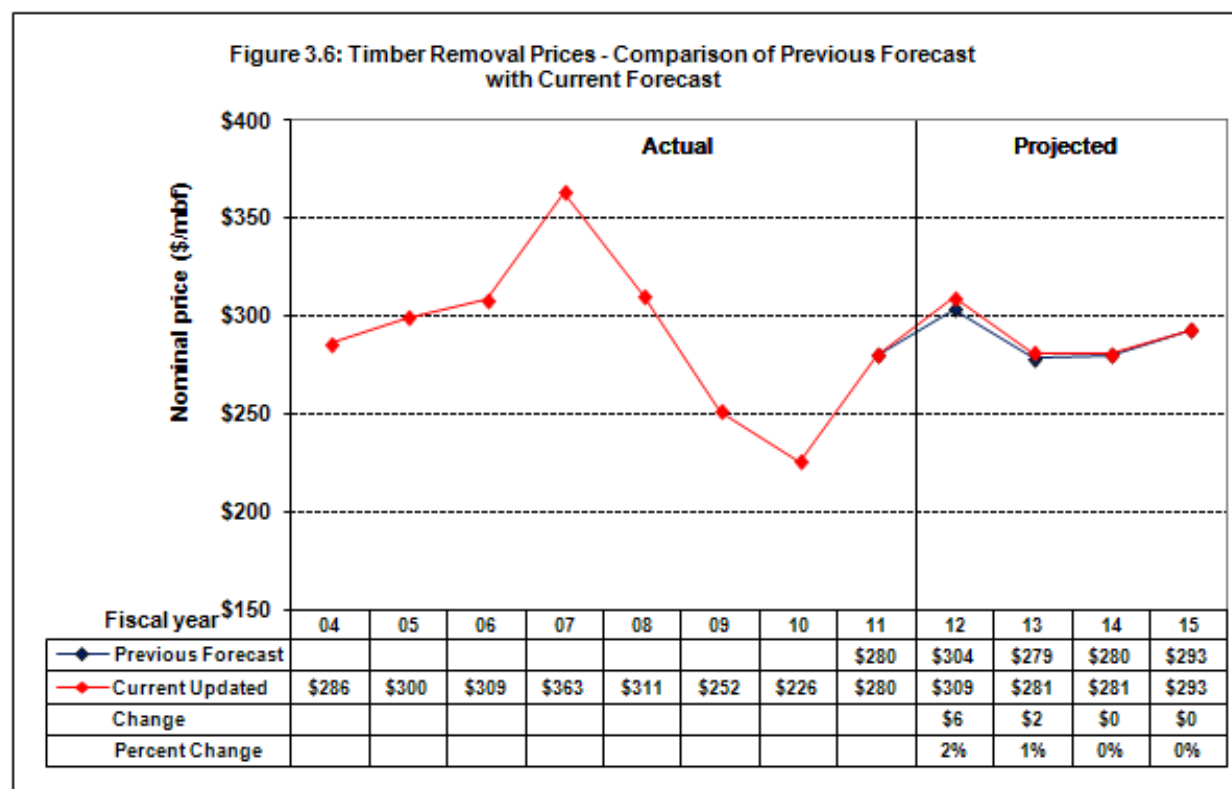
lumber prices cannot hold over a long period, so if lumber prices do not pick up we expect DNR timber sale prices to drop and/or there to be a number of offered sales with no bids.

Even though DNR timber sales have averaged \$339/mbf for the first seven months of FY 2012 compared with the \$282/mbf projected for the entire fiscal year in the September Forecast, this Forecast keeps the forecast price unchanged. This is based on two factors. First, DNR timber sales prices have fallen during the fiscal year—the volume-weighted timber sales price for the last three months was \$309/mbf compared with \$358/mbf for the first four months. Second, log prices are projected to fall over the next five months--the unexpected strength in log prices in this period in the previous two years is not expected this year. Since lumber prices are remaining relatively flat and since the timing of a breakout in the housing market remains uncertain, the forecast timber sale prices for FYs 2013, 2014, and 2015 are left unchanged at \$274, \$300, and \$300/mbf respectively (see **Figure 3.5**).

For the first time in years, there are reasons to be less pessimistic about the long-term recovery of the U.S. housing market but it is still valid to have a healthy dose of skepticism. The timing of a recovery in housing construction remains uncertain but when domestic demand for lumber does significantly grow, this will add upward pressure to stumpage prices. If it happens sooner, then the predicted DNR stumpage prices in the later years of the Forecast will prove to be too low.

Timber Removal Prices. Timber removal prices are a function of timber sales prices and the timing of the timber's removal. They can be thought of as a moving average of previous timber sales prices, weighted by the volume of sold timber removed in each time period. The removal

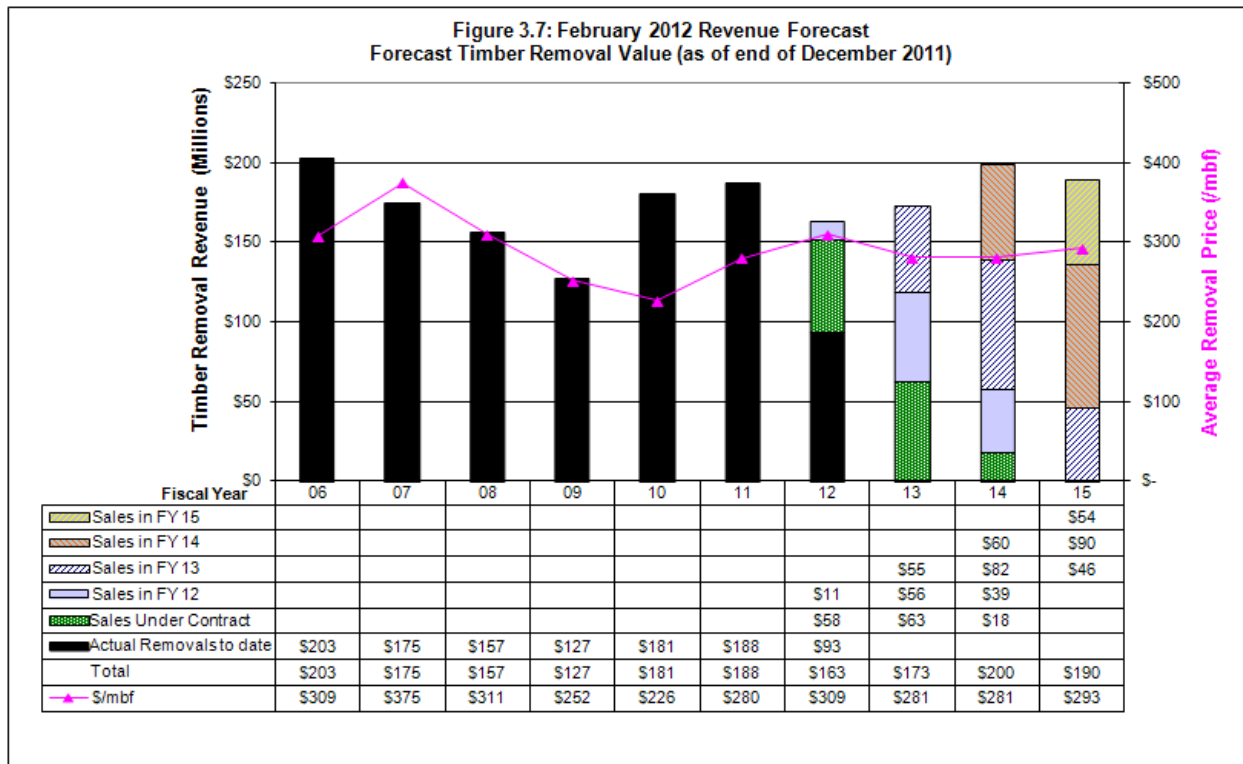
volumes used to calculate the weights are shown in **Figure 3.2**, which results in a smoothing out and a lag of timber removal prices compared to timber sales prices. For example, sales prices bottomed out at an average annual \$174/mbf in FY 2009 (see **Figure 3.5**). As shown in **Figure 3.6**, removal prices bottomed out in FY 2010 at \$226/mbf on an annual basis, which was \$52/mbf higher and a year later than the bottom for annual sales prices. Timber removal prices made a rebound in FY 2011 to an average annual price of \$280/mbf, thanks in part to the year-over-year increase in sales prices in FYs 2010 and 2011.



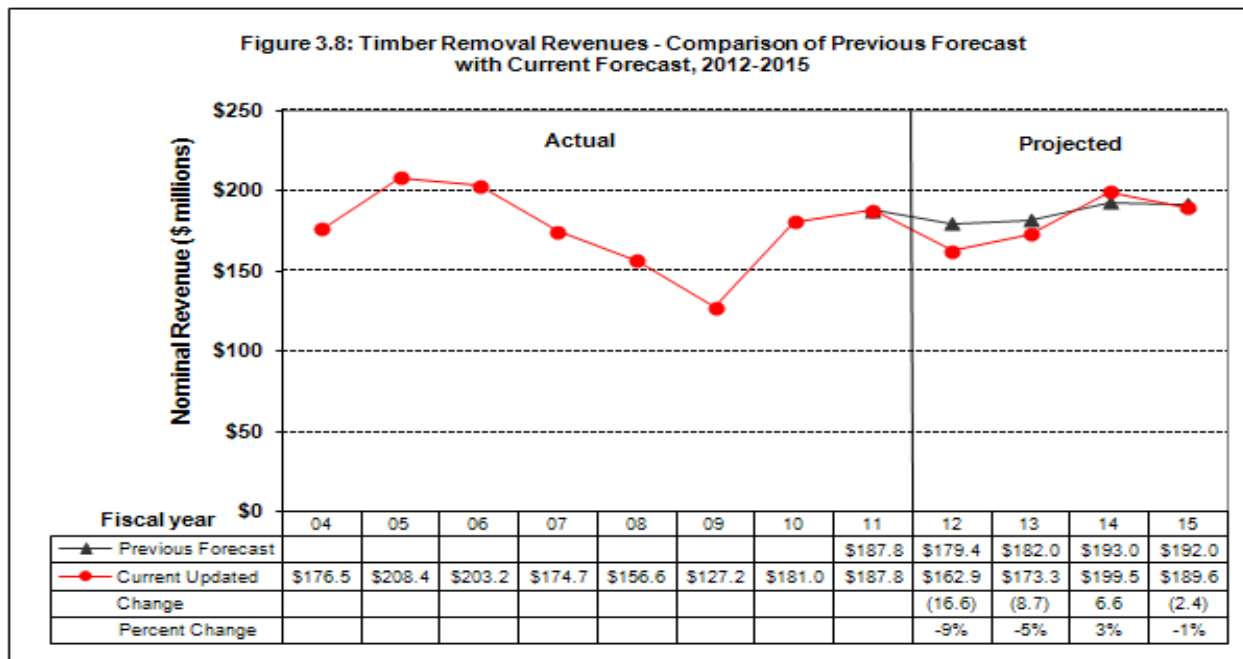
Removal prices are forecast to go even higher to \$309/mbf in FY 2012, due to the \$339/mbf average annual sales price for FY 2011 and the \$329/mbf year-to-date sales price for FY 2012. This is higher than the \$304/mbf removal price projected in the November Forecast. Actual removals for FY 2012 to date are averaging \$304/mbf (see **Figure 3.6**).

As shown in **Figure 3.6**, FY 2013's projected timber removal price is revised upward by \$2 to \$281/mbf. FYs 2014 and 2015 are left unchanged at \$281 and \$293/mbf respectively (because timber sale prices are left unchanged throughout the Forecast).

Timber Removal Revenues. **Figure 3.7** shows projected annual timber removal revenues and the average removal price for that fiscal year, broken down by the fiscal year in which the timber was sold ("sales under contract" are already sold as of January 1, 2012). About 57 percent (or \$93.4 million) of the forecast timber harvest revenue this fiscal year (FY 2012) will come from sold timber already harvested to date, another 36 percent (\$58.2 million) will come from previously sold timber sales currently under contract as of the end of December, and the final 7 percent (\$11.2 million) will come from FY 2012 sales sold after January 1, 2012.



In the current 2011-2013 Biennium, projected timber revenues are revised downward to \$336.2 million, a reduction of \$25.3 million, or 7 percent, from the November Forecast (see **Figure 3.8**). This is attributable to the reduction in projected timber removal volumes in both FY 2012 and 2013 since the projected removal prices are little changed. In the 2013-15 Biennium, forecast of timber removal revenues are up by \$4.2 million, or 1 percent, to \$389.1 million as a result of a 1 percent increase in projected removal volumes in the biennium.



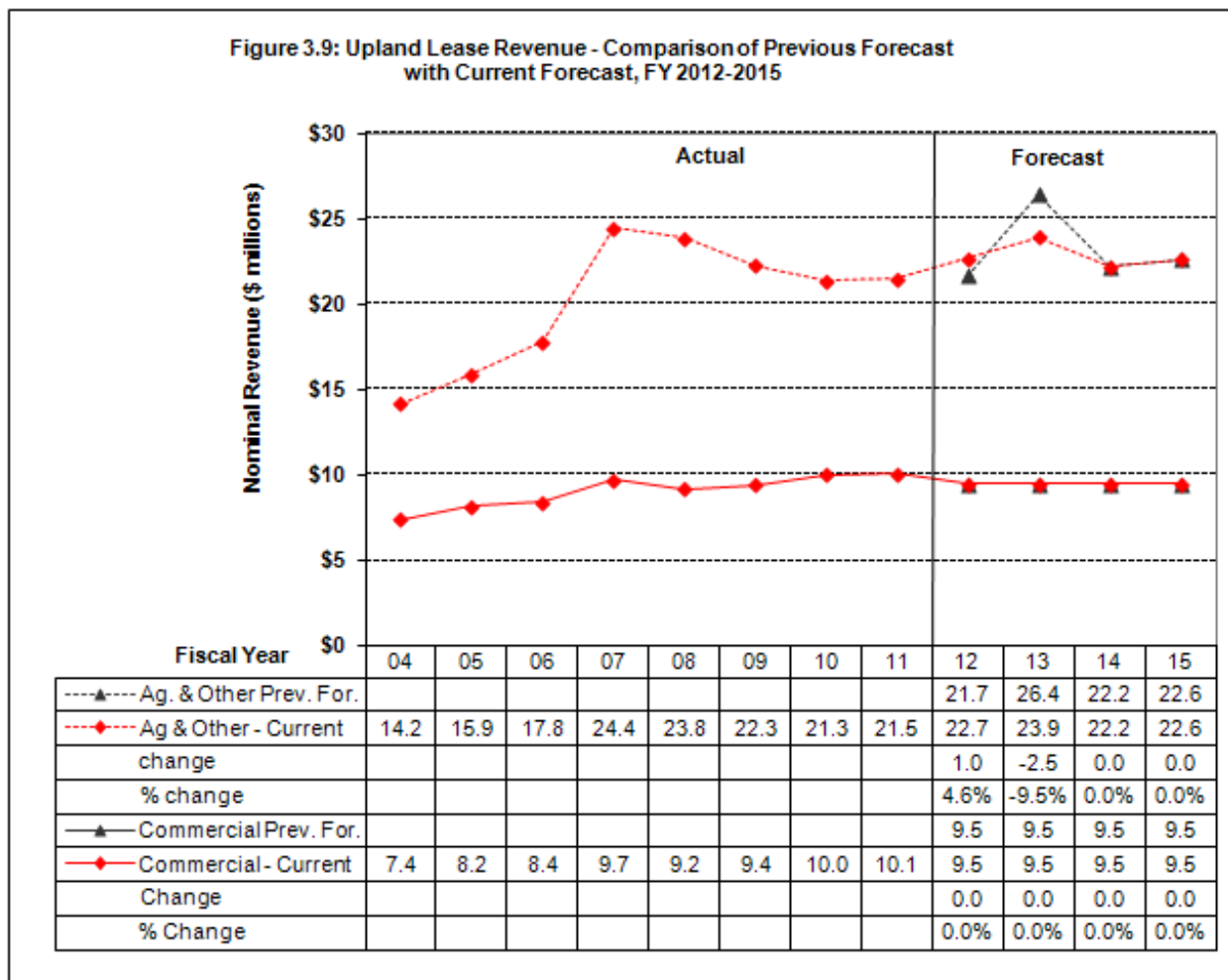
Upland lease revenues

Upland lease revenues are generated primarily from leases and the sale of valuable materials, other than timber, on state trust lands. In the Forecast, upland lease revenues are divided into two categories:

Commercial—Commercial real estate leases.

Agricultural and Other—Agricultural includes dryland cropland, irrigated cropland, and orchard and vineyard leases. “Other” includes grazing, special forest products special use, communication site, and mineral and hydrocarbon leases, right-of-way easements, and sales of valuable materials other than timber (e.g., rock, sand, and gravel), as well as other smaller miscellaneous revenue sources.

Commercial. Commercial real estate leases on state trust lands generate a steady source of revenue—\$10.1 million in FY 2011, a slight increase over FY 2010’s \$10.0 million (see **Figure 3.9**). DNR has been fortunate to be able to maintain a \$10 million revenue level in the last two fiscal years even in the midst of a difficult economy. The economic downturn increased



the probability that some of DNR's commercial building lessees could vacate, in which case it would be difficult to re-lease at the current rental rates, if at all.

DNR will lose JanSport as a tenant at its Everett warehouse commercial property at the end of January 2012. The JanSport lease is for \$1.2 million per year so losing the lease would mean losing \$0.5 million in rental revenue for the last five months of FY 2012.

This Forecast leaves projected commercial lease income unchanged at \$9.5 million per year for FYs 2012-2015, as originally set in the June 2011 Forecast. It may be difficult to maintain this level of revenue over the next four years as recovery in commercial real estate will likely be slow and uncertain.

Agricultural and Other. Revenues from agricultural and other (non-commercial) upland leases came in at \$21.5 million for FY 2011, almost the same as the FY 2010 revenue of \$21.3 million in these diverse uplands leasing programs (see **Figure 3.9**). Here is a more detailed breakdown of the source of these revenues over the last two fiscal years:

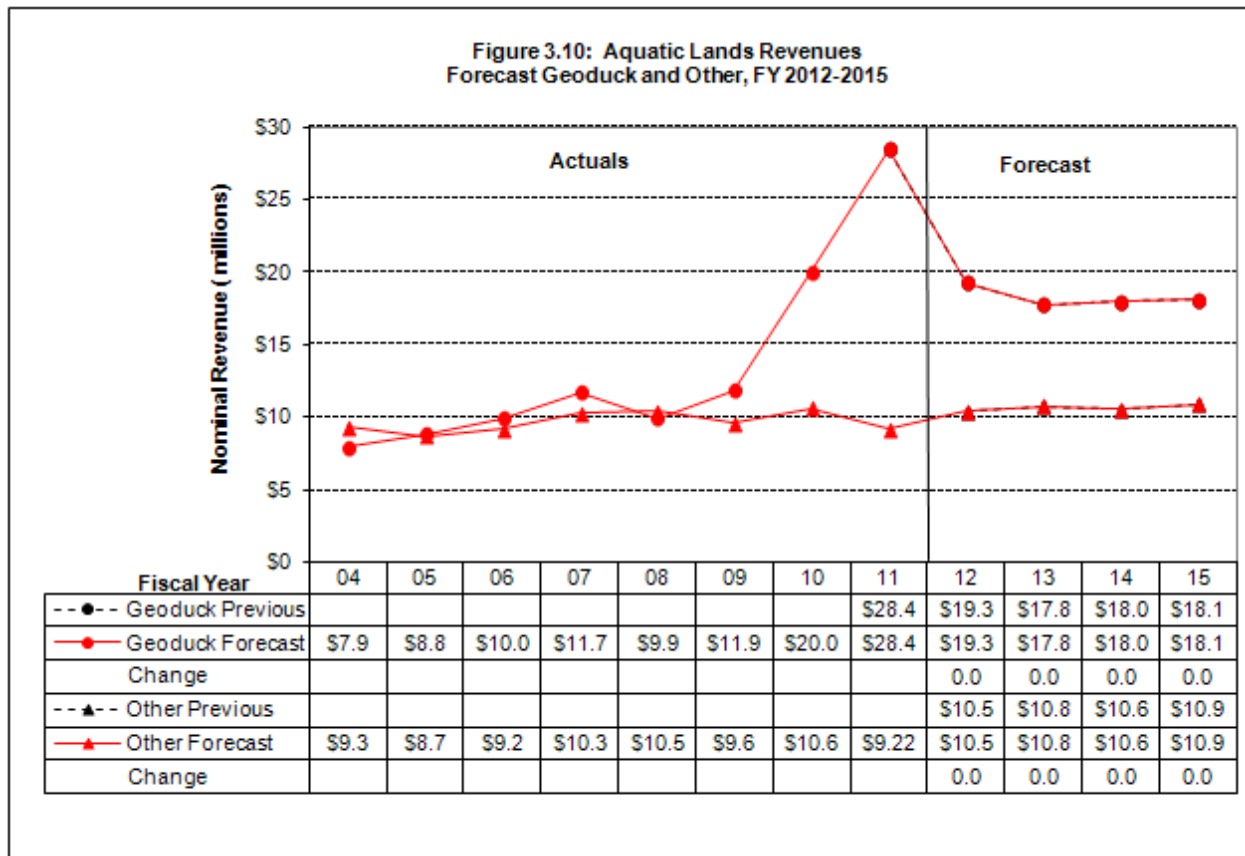
	<u>FY 2010</u>	<u>FY 2011</u>	<u>Percent of FY 2010-11 Total</u>
Agricultural	\$11,589,000	\$13,112,000	57.7
Grazing	664,000	663,000	3.1
Special forest products	585,000	424,000	2.4
Special use	1,760,000	1,818,000	8.4
Communication site	3,988,000	3,962,000	18.6
Right-of-Way	726,000	433,000	2.7
Mineral, oil, and gas	682,000	282,000	2.3
Rock, sand, and gravel	647,000	595,000	2.9
Other ³	<u>699,000</u>	<u>181,000</u>	2.1
Total	\$21,340,000	\$21,469,000	

Two changes are made from the November Forecast. First, revenues from agricultural leases are increased by \$1.0 million in FY 2012. This is due to fiscal year to date revenues exceeding expectations, especially in the irrigated agricultural lease subcategory (the other two subcategories of agricultural leases being dryland agriculture and orchards and vineyards). The year to date revenues in irrigated leases was \$1.9 million higher than expected and about \$1 million of that can be attributed to bonus bids paid on six leases on lands highly valued for potato farming. The other adjustment to the Forecast is a \$2.5 million reduction in FY 2013 due to lowered expectations from the return from the proposed sale of improvements (towers, buildings, and equipment) at certain communication sites in that fiscal year.

³ "Other" is composed of smaller miscellaneous revenue sources including habitat and conservation leases, trespasses, assessment payments, and pass-through power charges.

Aquatic lands revenues

Geoduck Revenues. There is no change from the November Forecast in projected geoduck revenues (see **Figure 3.10**). Geoduck revenues for FY 2012 were raised to \$19.3 million in the September Forecast based on the results of the August 2011 auction which yielded an average price of \$11.62 per pound on 0.50 million pounds sold, while holding constant both the underlying geoduck unit price of \$8.17 per pound being used for FY 2012 forecast purposes and a projected auction volume of 2.16 million pounds to be sold and accounted for in the fiscal year.



The November 2011 geoduck auction yielded an unprecedented price of \$17.70 per pound on 0.53 million pounds sold. However, it does not necessarily reflect a new sustainable price level because of factors including the auction's coincidence with Chinese New Year (peaking demand), PSP closures in Alaska geoduck beds (limiting supply), and matters specific to the bidding companies. We have incorporated the \$17.70 per pound average price on the November auction volume into the projected FY 2012 geoduck revenue but have reduced the projected annual auction volume because of uncertainty on the timing of and the volumes to be offered in future auctions for the remainder of FY 2012. The increased value realized in the November auction and the reduced value resulting from the reduced volume projection for the remainder of the year are offsetting as to total FY 2012 geoduck revenue. We will have much better information on the timing of geoduck auction volume at the time of the June 2012 Forecast and will make adjustments as necessary.

Geoduck revenue projections remain at \$37.1 million for the current 2011-2013 Biennium and \$36.1 million for the 2013-2015 Biennium (see **Figure 3.10**). However, there are several downside risks:

1. Harvests (and therefore revenues) could be deferred or lost due if geoduck beds are closed due an unpredictable occurrence of the paralytic shellfish poisoning (PSP) toxin.
2. A slowdown in China's economic growth could lower demand for this luxury consumption item in its predominant end market.
3. Other large-scale social-political-economic events in China such as the SARS (Severe Acute Respiratory Syndrome) outbreak in 2002-2003 could disrupt the economy and foreign trade and commerce.
4. Future commercial harvest levels may be reduced due to sustainability issues in light of WDFW surveys of closed south Puget Sound geoduck tracts showing slowed or declining recovery rates in recent years and evidence of active poaching.

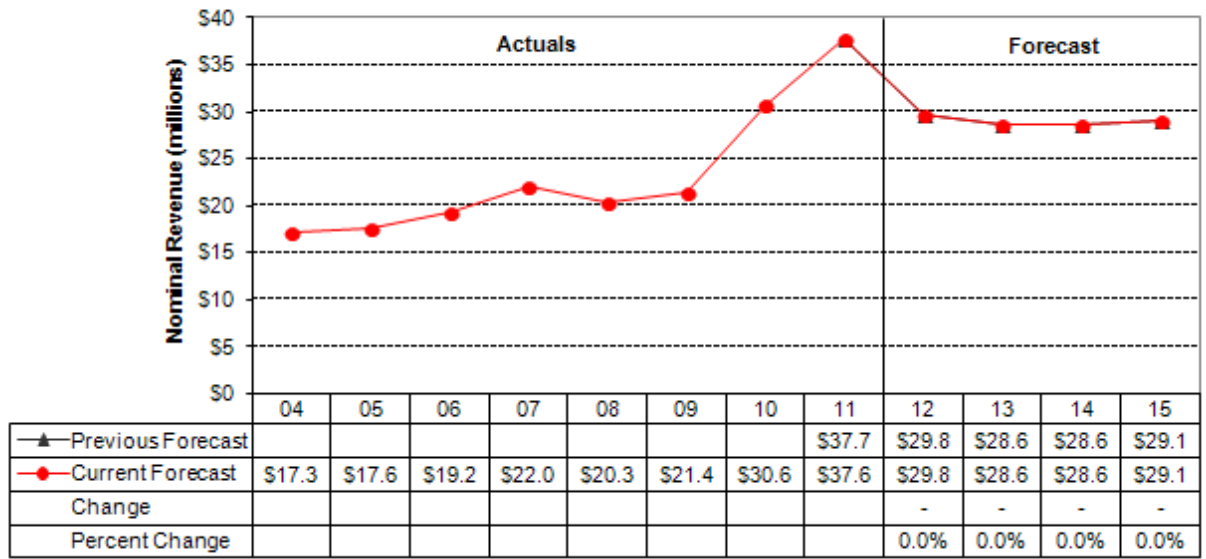
Lease and Other Revenues. DNR manages 2.6 million acres of state-owned aquatic lands for the benefit of the people of Washington. Where appropriate, these aquatic lands may be managed to generate revenue to the state. Besides auctions selling the rights to harvest geoducks, there are several other categories of revenues generated on the state's aquatic lands:

1. Water dependent leases (e.g., marinas and buoys);
2. Non-water dependent leases (e.g., structures related to upland uses);
3. Aquaculture leases (e.g., oyster and salmon "farming");
4. Easements (e.g., powerline rights of way); and
5. Other (e.g., sand and gravel sales and trespass settlements).

There is no change from the previous Forecast in these other (non-geoduck) aquatic lands revenue categories (see **Figure 3.10**). There is six month's worth of revenue data in for FY 2012 to date and there are no surprises in any of these categories. We expect that revenue in some of these categories will continue to be down because of the persistently weak economic conditions--this is already built in to the Forecast. The projected revenue in these other aquatic lands categories is projected to be \$21.3 million in the current 2011-2013 Biennium and they are projected to be \$21.5 million in 2013-2015 Biennium (see **Figure 3.10**).

Figure 3.11 shows annual actual and forecasts for all aquatic revenues (geoduck and other) combined. Total forecast revenues for all aquatic lands programs are unchanged at \$58.4 million for the 2011-2013 Biennium and at \$57.7 million for the 2013-2015 Biennium.

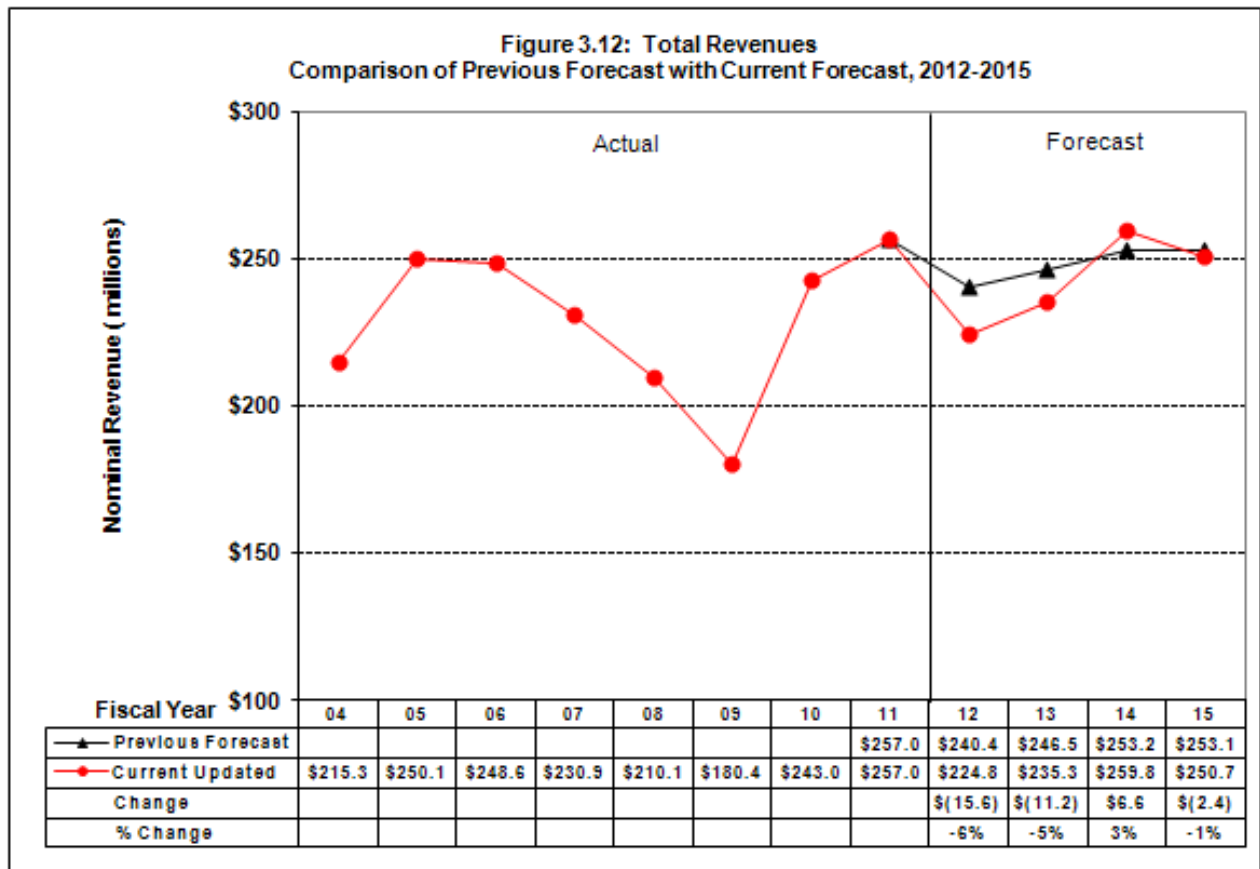
Figure 3.11: Aquatic Lands Revenues
Comparison of Previous Forecast with Current Forecast, FY 2012-2015



Fiscal year ending June 30

Total revenues from all sources

Forecast revenues for the current 2011-2013 Biennium (FYs 2012 and 2013) are down from the November Forecast by \$26.8 million, or 5.5 percent, to \$460.1 million (see **Figure 3.12**). Most all of the change is due to the projected reduction in timber revenues (see **Figure 3.8**), although there are smaller reductions in upland leasing revenues which contribute (see **Figure 3.9**).



Forecast revenues for the 2013-15 Biennium (FYs 2014 and 2015) are up from the previous Forecast by \$4.2 million (1 percent) to \$506.3 million (see **Figure 3.12**). All the change is due to the projected change in timber revenues.

Some caveats

DNR strives to produce the most accurate and objective forecast possible, based on the Department's current policy directions and available information. Actual revenues will depend on future policy decisions made by the Legislature and the Department, as well as on market and other conditions beyond DNR's control. Listed below are issues that could potentially have a significant impact on future revenues from DNR-managed lands:

U.S. and Global Economic Crisis. Finally, after years of depressing economic news, there are some glimmers of hope and increasing confidence. The U.S. unemployment rate has been steadily moving down as the economy creates more jobs. However, the recovery is weak and the economy remains fragile—there are still too many unemployed workers and there is downside vulnerability from the continuing European financial crisis, a slowdown in China's economy, and political gridlock in Washington DC.

U.S. Housing Market. New housing starts may at long last be moving out of the deep trough they entered over three years ago. Multifamily housing starts are trending up but single family starts remain flat. We may have passed the bottom, although it is uncertain when a significant breakout will occur and it could well still be years away. Home prices continue to fall and the average U.S. house is now worth only two-thirds of what it was at the height of the real estate bubble in 2006. Inventories of homes for sale are being reduced, but foreclosed residential properties will weigh down the housing market for years to come.

Timber Sales Volume. It may be difficult for DNR to make the target annual timber sales volumes of 656, 667, and 667 mmbf annually for FYs 2012, 2013, and 2014 respectively given that sales have exceeded the annual target of 624 mmbf in only two of the first seven years of the current sustainable harvest decade. In addition to the normal operational challenges facing DNR timber sales, market conditions have negatively affected potential timber purchasers in the forest products industry. Potential environmental and policy issues, especially regarding marbled murrelet habitat, will compound the difficulty of reaching the annual timber sales targets through the Forecast period. The 3 percent work-hour reduction for state workers is another factor working against achieving the projected timber sales volumes.

As events and market conditions develop, DNR will incorporate new information into future Forecasts. At this point, we judge the downside to the overall forecast to be greater than the upside because of the risks to the timber sales volume and therefore to timber removal volume and revenues.

Distribution of revenues

The distribution of timber revenues by trust are based on:

- The value of timber in the inventory (sales sold but not yet harvested);
- The volumes of timber in planned sales for FYs 2012 and 2013; and
- The distribution of the sustainable harvest for FYs 2014 and 2015.

Timber sales are expected to be harvested on average between 11.7 and 13.8 months after they are sold. Distributions of lease revenues are assumed to be proportional to historic distributions unless otherwise specified.

Since a single timber sale can be worth over \$3 million, dropping, adding, or delaying even one sale can represent a significant shift in revenues to a specific trust fund.

Management Fee Deduction. The underlying statutory management fee deductions to DNR as authorized by the legislature are up to 25 percent, as determined by the Board of Natural Resources (Board), for both the Resource Management Cost Account (RMCA) and the Forest Development Account (FDA). In budget bills, the legislature has authorized a deduction of up to 30 percent to RMCA since July 1, 2005. In the budget bill for the current 2011-2013 Biennium (Sec. 966, 2ESHB 1087), the legislature authorized the RMCA deduction at up to 30 percent for FY 2012 (the current fiscal year) only. At its April 2011 meeting, the Board adopted a resolution to reduce the RMCA deduction from 30 to 27 percent and the FDA deduction from 25 to 23 percent. At its July 2011 meeting, the Board acted to continue the deductions at 27 percent for RMCA (so long as this rate is authorized by the legislature) and at 23 percent for FDA. At its October 2011 meeting, the Board approved a resolution to reduce the FDA deduction from 23 to 21 percent.

At its September 2011 meeting, the Board authorized the Department to seek legislative approval to maintain the RMCA deduction at up to 30 percent in FY 2013. We anticipate this will be approved in the current legislative session and be effective on July 1, 2012.

Given this background of official actions by the legislature and the Board, the management fee deductions assumed in this Forecast are:

	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>
FDA	23/21*	21	21	21
RMCA	27	27	25	25

*23% through 10-10-11, changing to 21% effective 10-11-11

Changes to the RMCA and FDA management fee deductions will be incorporated into future Forecasts as appropriate to reflect future actions by the legislature and the Board.

Revenue forecast tables

Tables 3.1 and 3.2 on the following pages provide Forecast details. **Table 3.1** focuses on the source of revenues and **Table 3.2** focuses on the distribution of revenues. Both tables include historical and projected figures.

Table 3.1: February 2012 Forecast by Source (millions of dollars)								
Changes are from November 2011 Forecast								
Timber Sales	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Volume (mmbf)	660	541	730	591	656	667	667	597
Change	-	-	-	-	(23)	(12)	(12)	-
% Change	0%	0%	0%	0%	-3%	-2%	-2%	0%
Price (\$/mbf)	\$247	\$174	\$245	\$339	\$282	\$274	\$300	\$300
Change	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
% Change	0%	0%	0%	0%	0%	0%	0%	0%
Value of Timber Sales	\$ 163.0	\$ 94.0	\$ 178.5	\$ 200.4	\$ 184.9	\$ 182.7	\$ 200.3	\$ 179.2
Change	\$ -	\$ -	\$ -	\$ -	\$ (6.4)	\$ (3.2)	\$ (3.5)	\$ -
% Change	0%	0%	0%	0%	-3%	-2%	-2%	0%
Timber Removals	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Volume (mmbf)	504	506	801	670	526	616	711	646
Change	-	-	-	-	(65)	(36)	23	(8)
% Change	0%	0%	0%	0%	-11%	-6%	3%	-1%
Price (\$/mbf)	\$311	\$252	\$226	\$280	\$309	\$281	\$281	\$293
Change	\$0	\$0	\$0	\$0	\$6	\$2	\$0	\$0
% Change	0%	0%	0%	0%	2%	1%	0%	0%
Timber Revenue	\$ 156.6	\$ 127.2	\$ 181.0	\$ 187.8	\$ 162.9	\$ 173.3	\$ 199.5	\$ 189.6
Change	\$ -	\$ -	\$ -	\$ -	\$ (16.6)	\$ (8.7)	\$ 6.6	\$ (2.4)
% Change	0%	0%	0%	0%	-9%	-5%	3%	-1%
Lease Revenue	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Agricultural and Mineral	\$ 23.8	\$ 22.3	\$ 21.340	\$ 21.469	\$ 22.7	\$ 23.9	\$ 22.2	\$ 22.6
Change	\$ -	\$ -	\$ -	\$ -	\$ 1.0	\$ (2.5)	\$ -	\$ -
% Change	0%	0%	0%	0%	5%	-9%	0%	0%
Commercial	\$ 9.2	\$ 9.4	\$ 10.0	\$ 10.096	\$ 9.5	\$ 9.5	\$ 9.5	\$ 9.5
Change	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
% Change	0%	0%	0%	0%	0%	0%	0%	0%
Aquatic Lands	\$ 20.4	\$ 20.9	\$ 30.8	\$ 37.7	\$ 29.8	\$ 28.6	\$ 28.6	\$ 29.1
Change	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
% Change	0%	0%	0%	0%	0%	0%	0%	0%
Total Lease Revenue	\$ 53.4	\$ 52.6	\$ 62.1	\$ 69.2	\$ 61.9	\$ 62.0	\$ 60.2	\$ 61.2
Change	\$ -	\$ -	\$ -	\$ -	\$ 1.0	\$ (2.5)	\$ -	\$ -
% Change	0%	0%	0%	0%	2%	-4%	0%	0%
Total All Sources	\$ 210.0	\$ 179.8	\$ 243.1	\$ 257.0	\$ 224.8	\$ 235.3	\$ 259.8	\$ 250.7
Change	\$ -	\$ -	\$ -	\$ -	\$ (15.6)	\$ (11.2)	\$ 6.6	\$ (2.4)
% Change	0%	0%	0%	0%	-6%	-5%	3%	-1%
Note: Trust land transfer is not included in distribution revenues.								
This table excludes interest and Land Bank transactions, fire assessments, permits, and fees.								
Totals may not add due to rounding.								
Draft report - subject to change without notice								

Table 3.2: February 2012 Forecast by Fund (In millions of dollars)								
Changes are from November 2011 Forecast								
Management Funds	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
041 RMCA - Uplands	\$ 32.0	\$ 26.5	\$ 31.8	\$ 33.9	\$ 28.5	\$ 31.4	\$ 32.7	\$ 31.4
Change	\$ -	\$ -	\$ -	\$ -	\$ (2.8)	\$ 0.0	\$ 0.5	\$ (0.3)
% Change	0%	0%	0%	0%	-9%	0%	2%	-1%
041 RMCA - Aquatic Lands	\$ 8.6	\$ 8.9	\$ 13.9	\$ 17.5	\$ 13.29	\$ 12.6	\$ 12.7	\$ 12.9
Change	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
% Change	0%	0%	0%	0%	0%	0%	0%	0%
014 FDA	\$ 18.6	\$ 17.3	\$ 25.9	\$ 25.8	\$ 19.9	\$ 20.3	\$ 22.6	\$ 22.1
Change	\$ -	\$ -	\$ -	\$ -	\$ (1.1)	\$ (0.9)	\$ 0.9	\$ (0.3)
% Change	0%	0%	0%	0%	-5%	-4%	4%	-1%
Total Management Funds	\$ 59.2	\$ 52.7	\$ 71.6	\$ 77.1	\$ 61.7	\$ 64.3	\$ 68.0	\$ 66.4
Change	\$ -	\$ -	\$ -	\$ -	\$ (3.9)	\$ (0.8)	\$ 1.4	\$ (0.6)
% Change	0%	0%	0%	0%	-6%	-1%	2%	-1%
Current Funds	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
113 Common School Construction	\$ 56.6	\$ 41.5	\$ 47.9	\$ 56.5	\$ 53.9	\$ 58.7	\$ 67.3	\$ 65.8
Change	\$ -	\$ -	\$ -	\$ -	\$ (3.7)	\$ (5.7)	\$ 1.0	\$ (0.5)
% Change	0%	0%	0%	0%	-6%	-9%	1%	-1%
999 Forest Board Counties	\$ 52.5	\$ 48.6	\$ 67.9	\$ 70.5	\$ 62.9	\$ 63.5	\$ 70.5	\$ 66.7
Change	\$ -	\$ -	\$ -	\$ -	\$ (2.9)	\$ (0.8)	\$ 3.3	\$ (0.9)
% Change	0%	0%	0%	0%	-4%	-1%	5%	-1%
001 General Fund	\$ 3.0	\$ 1.4	\$ 5.0	\$ 4.2	\$ 3.1	\$ 3.1	\$ 3.3	\$ 3.2
Change	\$ -	\$ -	\$ -	\$ -	\$ (0.2)	\$ (0.3)	\$ 0.1	\$ (0.0)
% Change	0%	0%	0%	0%	-7%	-9%	4%	-1%
348 University Bond Retirement	\$ 2.3	\$ 3.4	\$ 1.8	\$ 1.3	\$ 0.8	\$ 1.6	\$ 2.3	\$ 2.3
Change	\$ -	\$ -	\$ -	\$ -	\$ (0.2)	\$ (0.4)	\$ (0.1)	\$ (0.0)
% Change	0%	0%	0%	0%	-20%	-18%	-3%	-1%
347 WSU Bond Retirement	\$ 1.2	\$ 1.6	\$ 1.2	\$ 1.4	\$ 1.1	\$ 1.1	\$ 1.1	\$ 1.1
Change	\$ -	\$ -	\$ -	\$ -	\$ 0.0	\$ (0.0)	\$ -	\$ -
% Change	0%	0%	0%	0%	5%	-3%	0%	0%
042 CEP&RI	\$ 3.8	\$ 3.8	\$ 5.6	\$ 4.9	\$ 5.1	\$ 5.2	\$ 5.8	\$ 5.9
Change	\$ -	\$ -	\$ -	\$ -	\$ (1.3)	\$ (0.7)	\$ 0.2	\$ (0.1)
% Change	0%	0%	0%	0%	-21%	-12%	3%	-1%
036 Capitol Building Construction	\$ 5.2	\$ 5.7	\$ 8.7	\$ 8.7	\$ 7.5	\$ 7.0	\$ 8.5	\$ 7.8
Change	\$ -	\$ -	\$ -	\$ -	\$ (1.0)	\$ (1.7)	\$ 0.0	\$ (0.1)
% Change	0%	0%	0%	0%	-12%	-20%	0%	-1%
061/3 Normal (CWU, EWU, WWU, TESC) Sc	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1
Change	\$ -	\$ -	\$ -	\$ -	\$ 0.0	\$ (0.0)	\$ -	\$ -
% Change	0%	0%	0%	0%	5%	-3%	0%	0%
Other Funds	\$ 0.2	\$ 0.4	\$ 0.1	\$ 0.1	\$ 0.0	\$ -	\$ 0.1	\$ 0.4
Change	\$ -	\$ -	\$ -	\$ -	\$ 0.0	\$ -	\$ (0.0)	\$ (0.0)
% Change	0%	0%	0%	0%	0%	0%	-2%	-1%
Total Current Funds	\$ 125.0	\$ 106.5	\$ 138.3	\$ 147.6	\$ 134.5	\$ 140.3	\$ 159.0	\$ 153.3
Change	\$ -	\$ -	\$ -	\$ -	\$ (9.4)	\$ (9.7)	\$ 4.5	\$ (1.6)
% Change	0%	0%	0%	0%	-6%	-6%	3%	-1%
(Continued)								

Table 3.2 (Continued): February 2012 Forecast by Fund (In millions of dollars)

Changes are from November 2011 Forecast								
Aquatic Lands Enhancement Account	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
02R	\$ 11.7	\$ 12.0	\$ 16.8	\$ 20.2	\$ 16.5	\$ 15.9	\$ 15.9	\$ 16.2
Change	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
% Change	0%	0%	0%	0%	0%	0%	0%	0%
Permanent Funds								
601 Agricultural College Permanent	\$ 4.3	\$ 2.9	\$ 6.1	\$ 2.9	\$ 3.0	\$ 3.2	\$ 3.5	\$ 3.5
Change	\$ -	\$ -	\$ -	\$ -	\$ (0.9)	\$ (0.2)	\$ 0.2	\$ (0.0)
% Change	0%	0%	0%	0%	-24%	-5%	6%	-1%
604 Normal School Permanent	\$ 3.1	\$ 2.5	\$ 4.0	\$ 3.0	\$ 2.5	\$ 2.6	\$ 3.1	\$ 2.8
Change	\$ -	\$ -	\$ -	\$ -	\$ 0.1	\$ 0.1	\$ 0.2	\$ (0.0)
% Change	0%	0%	0%	0%	3%	4%	5%	-1%
605 Common School Permanent	\$ 0.2	\$ 0.3	\$ 0.4	\$ 0.2	\$ 0.4	\$ 0.5	\$ 0.4	\$ 0.4
Change	\$ -	\$ -	\$ -	\$ -	\$ 0.0	\$ (0.0)	\$ -	\$ -
% Change	0%	0%	0%	0%	5%	-9%	0%	0%
606 Scientific Permanent	\$ 6.0	\$ 2.8	\$ 5.1	\$ 5.7	\$ 5.7	\$ 8.0	\$ 9.5	\$ 7.9
Change	\$ -	\$ -	\$ -	\$ -	\$ (1.3)	\$ (0.5)	\$ 0.3	\$ (0.1)
% Change	0%	0%	0%	0%	-18%	-5%	3%	-1%
607 University Permanent	\$ 0.5	\$ 0.1	\$ 0.7	\$ 0.3	\$ 0.4	\$ 0.5	\$ 0.4	\$ 0.2
Change	\$ -	\$ -	\$ -	\$ -	\$ (0.2)	\$ (0.1)	\$ 0.0	\$ (0.0)
% Change	0%	0%	0%	0%	-31%	-12%	6%	-2%
Total Permanent Funds	\$ 14.1	\$ 8.6	\$ 16.3	\$ 12.1	\$ 12.1	\$ 14.7	\$ 16.9	\$ 14.9
Change	\$ -	\$ -	\$ -	\$ -	\$ (2.3)	\$ (0.6)	\$ 0.6	\$ (0.2)
% Change	0%	0%	0%	0%	-16%	-4%	4%	-1%
Total All Funds	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Total	\$ 210.0	\$ 179.8	\$ 243.1	\$ 257.0	\$ 224.8	\$ 235.3	\$ 259.8	\$ 250.8
Change	\$ -	\$ -	\$ -	\$ -	\$ (15.6)	\$ (11.2)	\$ 6.6	\$ (2.4)
% Change	0%	0%	0%	0%	-6%	-5%	3%	-1%